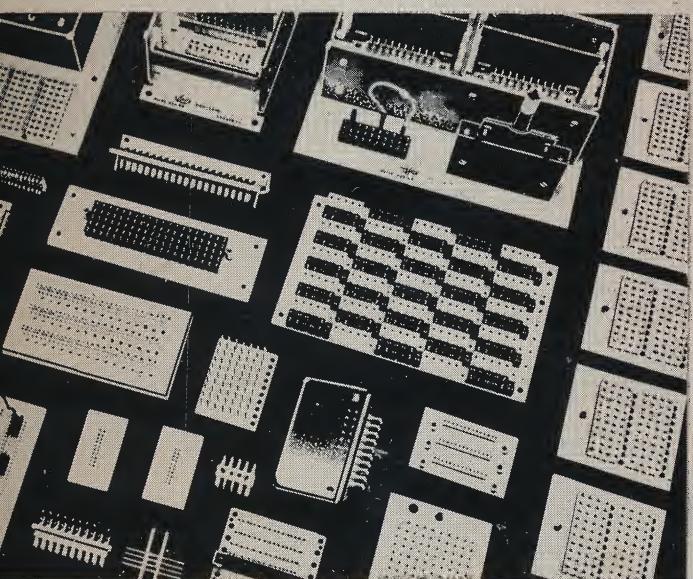
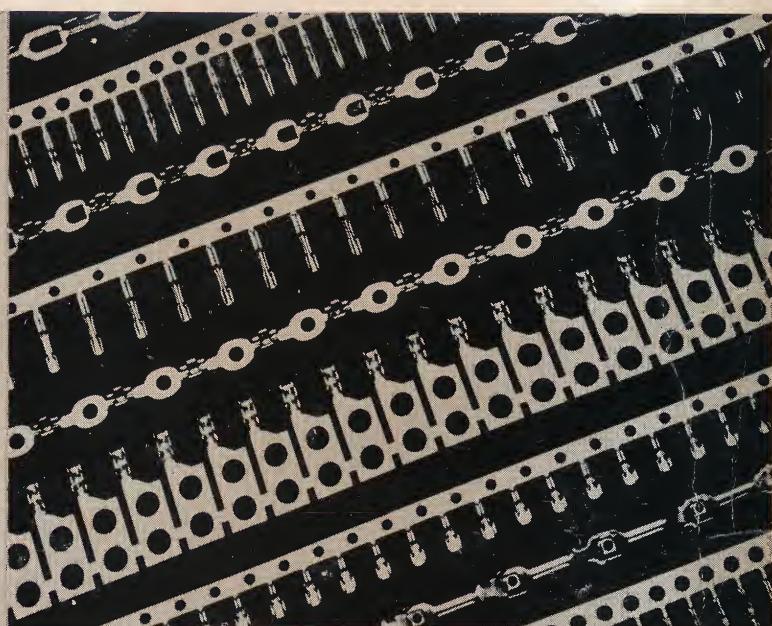


# PRECISION ELECTRONIC TERMINALS & CONNECTORS



MALCO



**MALCO MANUFACTURING COMPANY,**  
**4025 WEST LAKE STREET • CHICAGO, ILLINOIS 6**



ISSUE No. 10



# ELECTRONIC HARDWARE



**MALCO MANUFACTURING COMPANY**

4025 West Lake Street • Chicago, Illinois 60624

Telephone: Area Code 312, VAn Buren 6-9300

## to serve you...

**W**E HAVE endeavored to design this catalog as a handy, quick reference manual.

Drawings and specifications throughout pertain to standard MALCO parts. Parts shown on pages 4 and 5 are typical. In each case, numbers immediately below refer to pages giving detailed specifications, as well as variations.

In many cases, materials or specifications can be varied to fit individual requirements at a nominal set up charge. All items are supplied cadmium plated, unless otherwise specified.

When requesting prices or ordering, please give part number, plating specification and quantity. Where variations from standard are required, add your drawing and specifications. Prices quoted are F. O. B. our plant.

Malco Manufacturing Company is equipped with modern high speed production facilities to produce metal stampings of the highest quality at the lowest possible cost.

Our experienced engineering staff is at your service at all times to assist you in your requirements—standard or special.

**MALCO MANUFACTURING COMPANY**

4025 W. LAKE STREET • CHICAGO, ILLINOIS, 60624 • VA 6-9300

Malco

## contents

NUMERICAL INDEX ON PAGES 2 AND 3 ILLUSTRATED INDEX ON PAGES 4 AND 5

	PAGE
BINDING POSTS	32
BRACKETS	28, 29, 30
CENTER SHIELDS	13
CONTACTS	7 to 11, 27
CORONA RINGS	27
DRAWN SOLDERING LUGS	14 to 19, 27
FEED THRU TERMINALS	20, 21
GROUND STRAPS	12, 13
LUGS, SOLDERING	14 to 19, 22 to 25, 27, 32
LUGS, SOLDERLESS	21, 26, 27
MALE QUICK-DISCONNECT TERMINALS	26, 32
PHONO PLUG & RECEPTACLE HARDWARE	31
PIN RECEPTACLES	6
SADDLES	12
SCREW-TERMINALS	32
SHELLS	31
TERMINALS, NON-SOLDERING	26
TERMINALS, PRINTED CIRCUIT	6
TERMINALS, SOLDERING	14 to 19, 21 to 25, 27, 32
TERMINALS, SOLDERLESS	21, 26, 27
TUBE PIN - CONTACTS	6 to 11
WASHERS	27
WRAP-A-WIRE TERMINALS	6, 26

# NUMERICAL INDEX

Part No.	Page No.	Part No.	Page No.						
105 .....	32	252 .....	15	475 .....	10	622 .....	23	779 .....	9
108 .....	32	253 .....	15	476 .....	23	632 .....	20	781 .....	9
110 .....	10	267 .....	14	481 .....	17	633 .....	20	782 .....	22
111 .....	10	269 .....	18	483 .....	17	642 .....	9	788 .....	25
114 .....	10	270 .....	14	491 .....	24	646 .....	31	800 .....	25
115 .....	12	273 .....	18	492 .....	24	651 .....	15	842 .....	15
118 .....	32	276 .....	19	493 .....	24	652 .....	19	843 .....	19
119 .....	32	280 .....	13	494 .....	24	656 .....	18	859 .....	25
120 .....	29	281 .....	13	495 .....	12	660 .....	22	862 .....	17
121 .....	27	287 .....	13	499 .....	22	661 .....	17	863 .....	17
122 .....	14	299 .....	10	509 .....	7	669 .....	17	868 .....	25
123 .....	14	300 .....	10	510 .....	7	673 .....	18	872 .....	22
124 .....	14	301 .....	11	511 .....	7	675 .....	22	912 .....	31
125 .....	15	303 .....	11	512 .....	7	676 .....	21	921 .....	29
127 .....	14	310 .....	12	513 .....	7	677 .....	21	922 .....	9
129 .....	15	313 .....	14	514 .....	7	678 .....	17	924 .....	23
130 .....	14	321 .....	29	515 .....	7	679 .....	24	930 .....	17
131 .....	29	322 .....	29	516 .....	7	688 .....	23	931 .....	32
133 .....	29	324 .....	18	517 .....	7	690 .....	24	933 .....	23
138 .....	14	326 .....	24	524 .....	17	691 .....	24	944 .....	21
147 .....	32	353 .....	18	530 .....	31	692 .....	24	946 .....	10
148 .....	32	354 .....	18	538 .....	12	703 .....	23	947 .....	10
149 .....	32	355 .....	10	551 .....	11	704 .....	23	948 .....	32
151 .....	12	356 .....	20	552 .....	11	713 .....	22	949 .....	32
152 .....	14	357 .....	32	559 .....	16	715 .....	22	950 .....	32
158 .....	14	387 .....	30	572 .....	28	718 .....	22	952 .....	17
175 .....	10	421 .....	16	576 .....	31	719 .....	22	953 .....	18
176 .....	19	424 .....	12	577 .....	20	721 .....	22	955 .....	11
177 .....	19	425 .....	12	580 .....	24	723 .....	22	957 .....	17
182 .....	12	427 .....	31	587 .....	12	727 .....	22	958 .....	18
207 .....	30	428 .....	31	590 .....	12	730 .....	22	966 .....	20
208 .....	30	435 .....	32	592 .....	12	733 .....	22	973 .....	24
215 .....	16	438 .....	32	593 .....	12	747 .....	22	975 .....	24
217 .....	12	444 .....	29	596 .....	27	749 .....	25	977 .....	23
219 .....	24	449 .....	31	597 .....	27	753 .....	22	978 .....	16
220 .....	12	451 .....	24	600 .....	21	754 .....	23	981 .....	18
223 .....	31	458 .....	13	601 .....	19	755 .....	23	983 .....	23
229 .....	18	461 .....	16	604 .....	23	756 .....	25	984 .....	31
230 .....	18	463 .....	25	608 .....	12	757 .....	25	985 .....	16
233 .....	19	464 .....	23	609 .....	12	761 .....	14	987 .....	25
234 .....	18	469 .....	21	616 .....	23	762 .....	16	996 .....	24
235 .....	14	471 .....	20	617 .....	23	770 .....	24	999 .....	11
236 .....	14	472 .....	20	619 .....	23	772 .....	19	1008 .....	32
244 .....	15	473 .....	17	620 .....	23	773 .....	23	1016 .....	24
246 .....	19	474 .....	17	621 .....	23	774 .....	23	1017 .....	24

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LT 2

# NUMERICAL INDEX

Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
1018 . . . . .	24	1439 . . . . .	13	2118 . . . . .	8	2403 . . . . .	32	5025-6 . . . . .	29
1019 . . . . .	24	1451 . . . . .	24	2119 . . . . .	8	2416 . . . . .	14	5025-8 . . . . .	30
1020 . . . . .	24	1454 . . . . .	7	2120 . . . . .	24	2419 . . . . .	9	5025-19 . . . . .	29
1021 . . . . .	10	1461 . . . . .	8	2122 . . . . .	13	2430 . . . . .	9	5026-1 . . . . .	30
1023 . . . . .	24	1470 . . . . .	13	2125 . . . . .	8	5003-1 . . . . .	26	5026-2 . . . . .	30
1024 . . . . .	24	1471 . . . . .	25	2127 . . . . .	21	5020-1 . . . . .	23	5026-3 . . . . .	30
1025 . . . . .	24	1474 . . . . .	26	2141 . . . . .	9	5020-2 . . . . .	23	5026-4 . . . . .	28
1028 . . . . .	8	1476 . . . . .	26	2151 . . . . .	32	5020-3 . . . . .	23	5026-5 . . . . .	28
1030 . . . . .	25	1483 . . . . .	7	2152 . . . . .	27	5023-1 . . . . .	30	5026-6 . . . . .	28
1039 . . . . .	24	1488 . . . . .	14	2181 . . . . .	26	5023-2 . . . . .	30	5026-10 . . . . .	28
1044 . . . . .	24	1500 . . . . .	18	2182 . . . . .	26	5023-3 . . . . .	30	5028-1 . . . . .	15
1045 . . . . .	24	1502 . . . . .	28	2186 . . . . .	28	5023-4 . . . . .	28	5029-1 . . . . .	30
1061 . . . . .	24	1528 . . . . .	11	2190 . . . . .	32	5023-5 . . . . .	28	5029-2 . . . . .	30
1062 . . . . .	24	1533 . . . . .	26	2195 . . . . .	7	5023-6 . . . . .	28	5029-3 . . . . .	30
1070 . . . . .	12	1544 . . . . .	27	2204 . . . . .	17	5023-7 . . . . .	28	5029-4 . . . . .	29
1071 . . . . .	12	1547 . . . . .	22	2205 . . . . .	31	5023-8 . . . . .	30	5029-5 . . . . .	29
1078 . . . . .	21	1565 . . . . .	27	2206 . . . . .	31	5023-9 . . . . .	30	5029-6 . . . . .	29
1085 . . . . .	21	1568 . . . . .	8	2207 . . . . .	31	5023-10 . . . . .	28	5030-2 . . . . .	30
1091 . . . . .	26	1589 . . . . .	8	2246 . . . . .	16	5023-11 . . . . .	28	5030-3 . . . . .	30
1101 . . . . .	20	1600 . . . . .	32	2250 . . . . .	16	5023-12 . . . . .	28	5030-5 . . . . .	28
1111 . . . . .	8	1601 . . . . .	32	2261 . . . . .	26	5023-13 . . . . .	30	5030-6 . . . . .	28
1115 . . . . .	14	1630 . . . . .	29	2262 . . . . .	26	5023-14 . . . . .	28	5048-1 . . . . .	16
1123 . . . . .	32	1643 . . . . .	8	2266 . . . . .	16	5023-15 . . . . .	28	5048-2 . . . . .	16
1134 . . . . .	13	1665 . . . . .	13	2279 . . . . .	16	5023-16 . . . . .	30	5048-3 . . . . .	16
1135 . . . . .	22	1701 . . . . .	16	2290 . . . . .	16	5023-17 . . . . .	30	5049-1 . . . . .	16
1137 . . . . .	24	1705 . . . . .	26	2303 . . . . .	27	5023-18 . . . . .	28	5049-2 . . . . .	16
1139 . . . . .	24	1713 . . . . .	27	2308 . . . . .	14	5023-19 . . . . .	30	5049-3 . . . . .	16
1146 . . . . .	29	1757 . . . . .	23	2309 . . . . .	14	5023-20 . . . . .	30	5050-1 . . . . .	16
1151 . . . . .	8	1761 . . . . .	16	2311 . . . . .	28	5023-21 . . . . .	30	5050-2 . . . . .	16
1154 . . . . .	32	1774 . . . . .	26	2312 . . . . .	28	5024-1 . . . . .	30	5050-3 . . . . .	16
1155 . . . . .	21	1778 . . . . .	8	2316 . . . . .	9	5024-2 . . . . .	30	5051-2 . . . . .	16
1159 . . . . .	7	1808 . . . . .	8	2326 . . . . .	28	5024-3 . . . . .	30	5051-3 . . . . .	16
1181 . . . . .	24	1859 . . . . .	31	2332 . . . . .	31	5024-4 . . . . .	28	5077-1 . . . . .	13
1204 . . . . .	8	1912 . . . . .	23	2333 . . . . .	31	5024-5 . . . . .	28	11037-1 . . . . .	14
1205 . . . . .	8	1913 . . . . .	18	2334 . . . . .	31	5024-6 . . . . .	28	11037-2 . . . . .	14
1213 . . . . .	15	1941 . . . . .	20	2339 . . . . .	28	5024-7 . . . . .	30	13A009-0 . . . . .	6
1214 . . . . .	19	2048 . . . . .	7	2343 . . . . .	27	5024-10 . . . . .	28	13A009-1 . . . . .	6
1253 . . . . .	7	2050 . . . . .	32	2350 . . . . .	16	5024-12 . . . . .	28	13A009-5 . . . . .	6
1298 . . . . .	11	2064 . . . . .	8	2362 . . . . .	9	5024-13 . . . . .	29	13A009-9 . . . . .	6
1326 . . . . .	7	2080 . . . . .	8	2366 . . . . .	16	5024-14 . . . . .	29	13A009-13 . . . . .	6
1389 . . . . .	23	2091 . . . . .	30	2372 . . . . .	28	5025-1 . . . . .	30	13A041-0 . . . . .	6
1392 . . . . .	7	2111 . . . . .	32	2373 . . . . .	16	5025-2 . . . . .	30	13A041-3 . . . . .	6
1419 . . . . .	28	2115 . . . . .	23	2391 . . . . .	26	5025-3 . . . . .	30	13A041-9 . . . . .	6
1434 . . . . .	15	2116 . . . . .	9	2401 . . . . .	17	5025-4 . . . . .	29	14A098-0 . . . . .	6
1436 . . . . .	7	2117 . . . . .	22	2402 . . . . .	11	5025-5 . . . . .	29	14A100-0 . . . . .	6

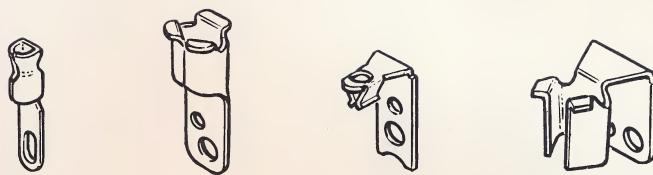
**MALCO MANUFACTURING COMPANY**

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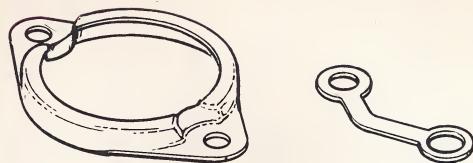
# ILLUSTRATED INDEX

## Socket and Connector Hardware



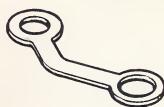
### CONTACTS

Pages 7, 8, 9, 10, 11 and 27



### SADDLES

Page 12



### GROUND STRAPS

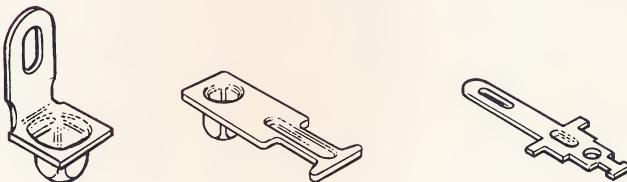
Pages 12  
and 13



### CENTER SHIELDS

Page 13

## Soldering Terminals

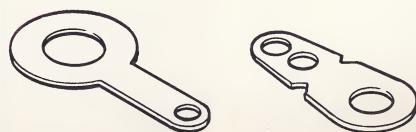


### DRAWN SOLDERING LUGS

Pages 14, 15, 16, 17, 18,  
19 and 27

### FEED THRU TERMINALS

Pages 20 and 21



### SOLDERING TERMINALS

Pages 22, 23, 24, and 25



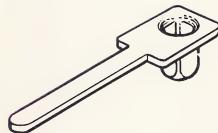
### CORONA RINGS

Page 27

# ILLUSTRATED INDEX

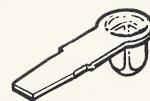


## Terminals (Non Soldering)



**WRAP-A-WIRE  
TERMINALS**

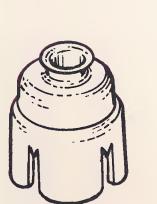
Pages 6, 26



**MALE QUICK-DISCONNECT  
TERMINALS**

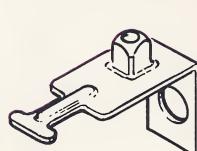
Page 26

## Phono Plug and Receptacle Hardware



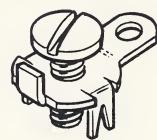
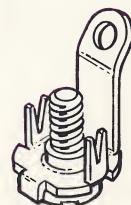
Page 31

## Brackets



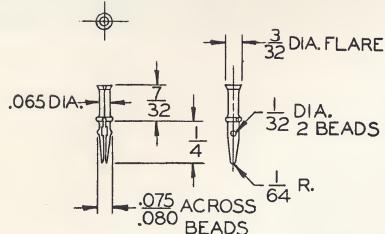
Pages 28, 29 and 30

## Binding Posts



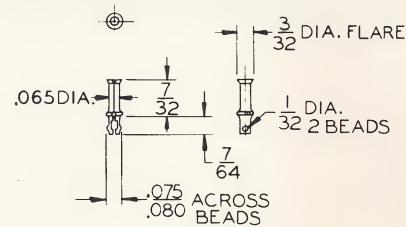
Page 32

# CONTACTS



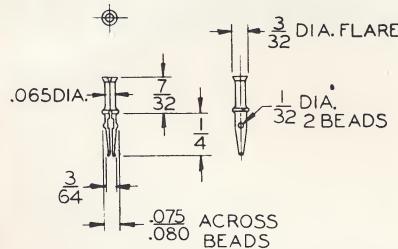
NOTE: TO HOLD SECURELY  
IN A .067  
.070 DIA. HOLE

13A009-0 .0063 BRASS\*



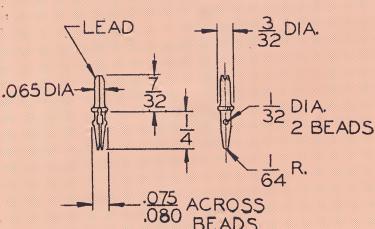
NOTE: TO HOLD SECURELY  
IN A .067  
.070 DIA. HOLE

13A009-5 .0063 BRASS\*  
13A009-13 .007 PHOS. BRONZE\*



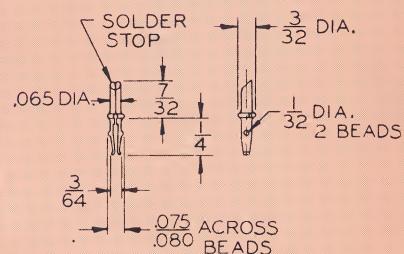
NOTE: TO HOLD SECURELY  
IN A .067  
.070 DIA. HOLE

13A009-1 .0063 BRASS\*  
13A009-9 .007 PHOS. BRONZE\*



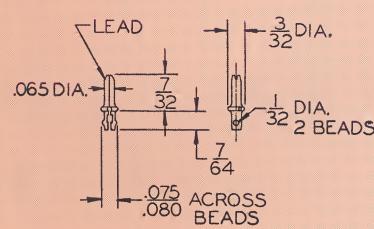
NOTE: TO HOLD SECURELY  
IN A .067  
.070 DIA. HOLE

13A041-0 .0063 BRASS\*



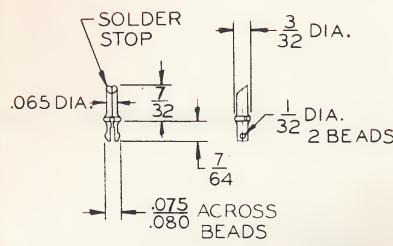
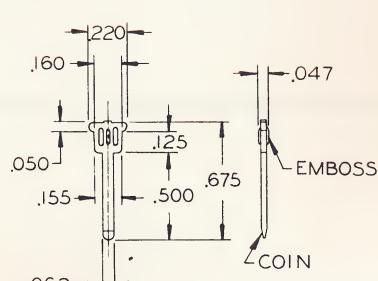
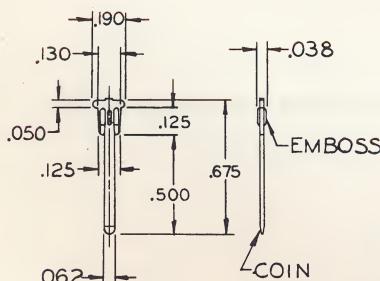
NOTE: TO HOLD SECURELY  
IN A .067  
.070 DIA. HOLE

13A041-10 .0063 BRASS\*



NOTE: TO HOLD SECURELY  
IN A .067  
.070 DIA. HOLE

13A041-3 .0063 BRASS\*



NOTE: TO HOLD SECURELY  
IN A .067  
.070 DIA. HOLE

14A098-0 .025 BRASS

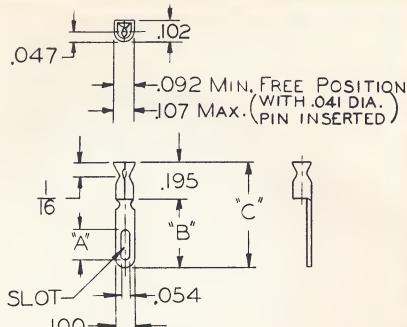
14A100-0 .032 BRASS

13A041-9 .007 PHOS. BRONZE\*

FULL SCALE ISSUE 10

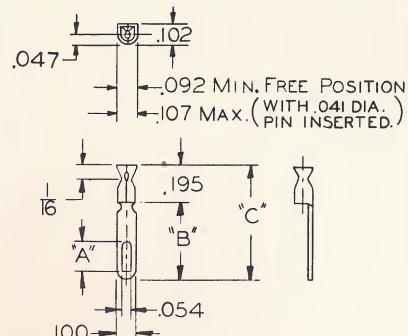
LT 6 \*PRE-TINNED

## CONTACTS



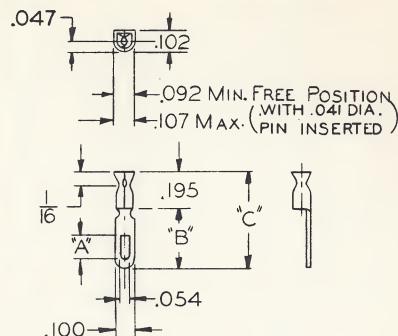
NOTE : WILL MEET COMMERCIAL SPECIFICATIONS.

	.0126 BRASS	"A"	"B"	"C"
509	.126	.296	.491	
512	.158	.360	.555	
515	.158	.400	.595	
1436	.360	.555	LESS SLOT	
1483	.400	.595	LESS SLOT	



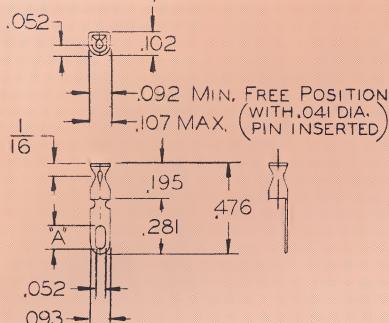
NOTE : WILL MEET JAN SPECIFICATIONS.

	.0126 PHOS. BRONZE	"A"	"B"	"C"
510	.126	.296	.491	
513	.158	.360	.555	
516	.158	.400	.595	



NOTE : WILL MEET JAN SPECIFICATIONS.

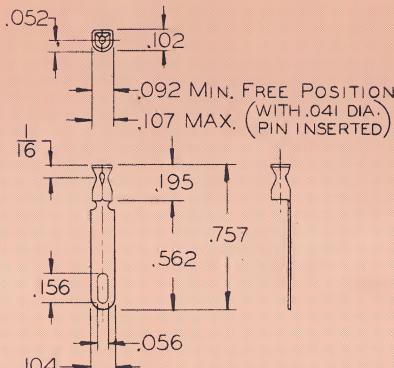
	.0126 BER. COPPER	"A"	"B"	"C"
511	.126	.296	.491	
514	.158	.360	.555	
517	.158	.400	.595	



NOTE : WILL MEET COMMERCIAL SPECIFICATIONS.

.0126 BRASS

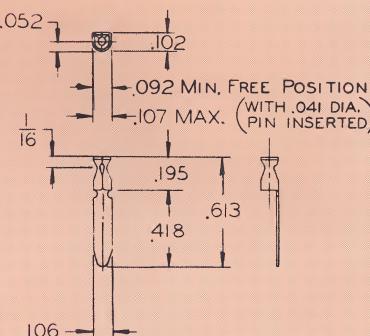
	"A"
1159	.125
2195	.106



NOTE : WILL MEET JAN SPECIFICATIONS.

1392

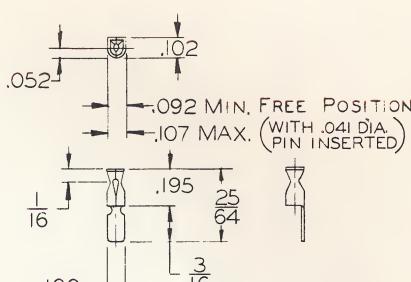
.0126 PHOS. BRONZE



NOTE : WILL MEET COMMERCIAL SPECIFICATIONS.

1326

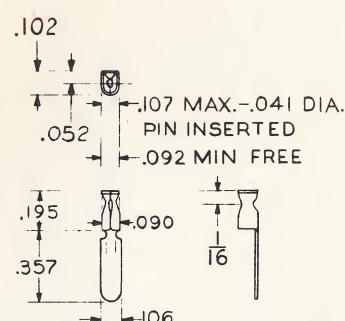
.0126 BRASS



NOTE : WILL MEET COMMERCIAL SPECIFICATIONS.

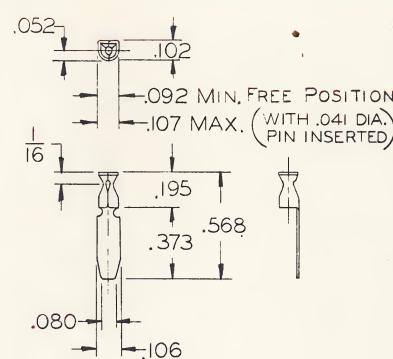
2048

.0126 BRASS



1454

.0126 BRASS

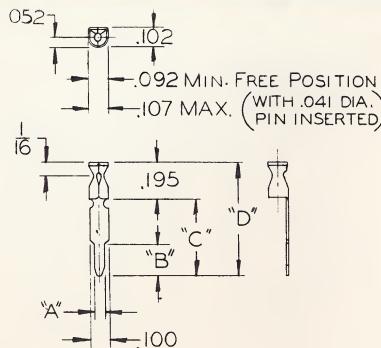


NOTE : WILL MEET COMMERCIAL SPECIFICATIONS.

1253

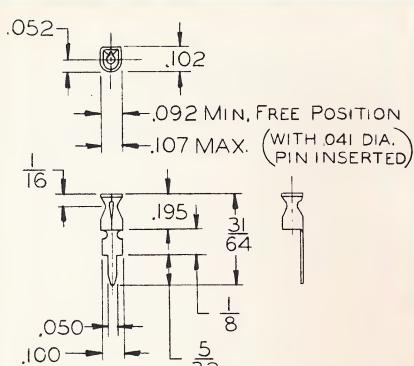
.0126 BRASS

# CONTACTS



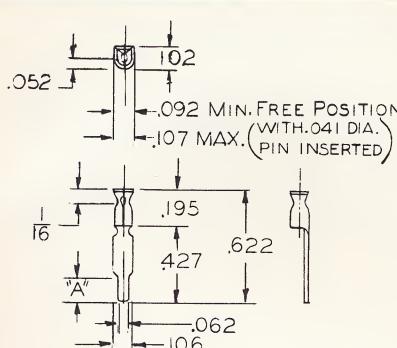
NOTE: WILL MEET COMMERCIAL SPECIFICATIONS

.0126 BRASS  
 "A" "B" "C" "D"  
 1461 .058 .170 .413 .608  
 1643 .059  $\frac{1}{8}$  .415 .610  
 1111 .046  $\frac{1}{8}$  .480 .675



NOTE: WILL MEET COMMERCIAL SPECIFICATIONS

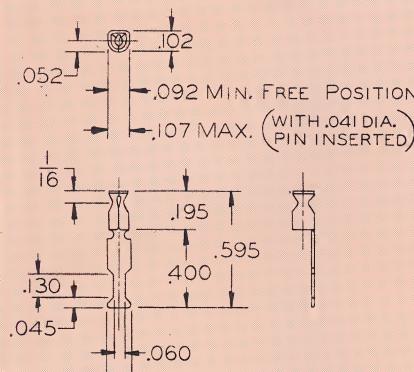
1568 .0126 BRASS



NOTE: WILL MEET COMMERCIAL SPECIFICATIONS

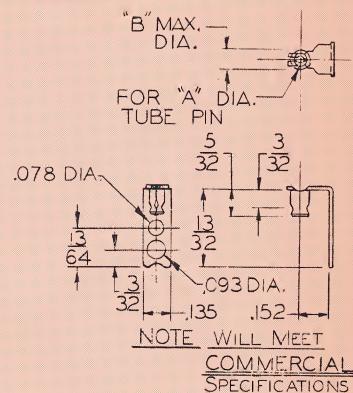
.0126 BRASS  
 "A"

1204 .156  
 1205 .187



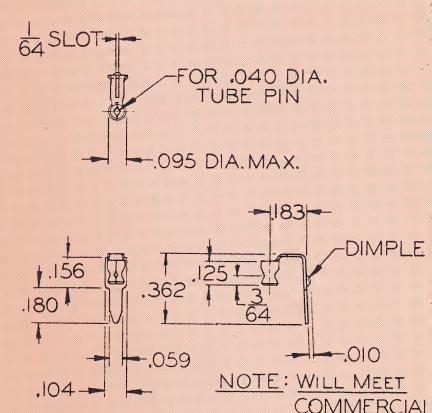
NOTE: WILL MEET COMMERCIAL SPECIFICATIONS

2064 .0126 BRASS

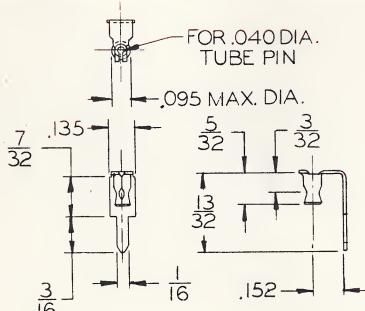


NOTE: WILL MEET COMMERCIAL SPECIFICATIONS

"A" "B"  
 1028 .0126 BRASS .040 .095  
 2080 .0126 BRASS .030 .097  
 2118 .0126 BER. COPPER .040 .095  
 2119 .0126 PHOS. BRONZE .040 .095

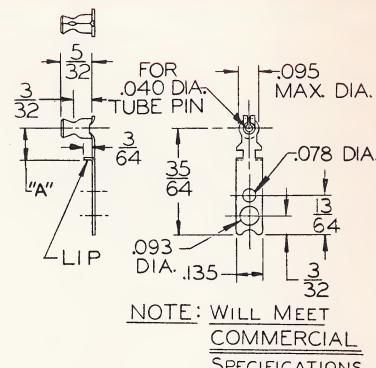


1778 .0126 BRASS



NOTE: WILL MEET COMMERCIAL SPECIFICATIONS

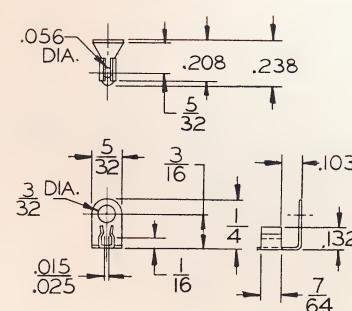
1808 .0126 BRASS



NOTE: WILL MEET COMMERCIAL SPECIFICATIONS

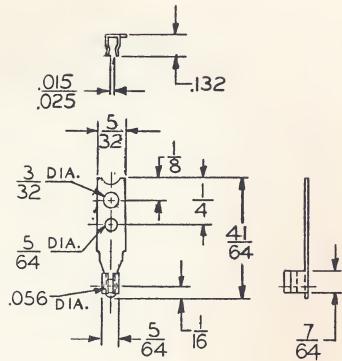
2125  
1589

"A"  
 .165  
 (LESS LIPS)

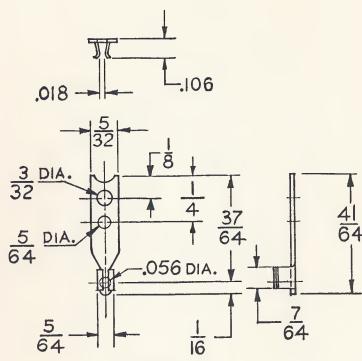


1151 .0126 BRASS

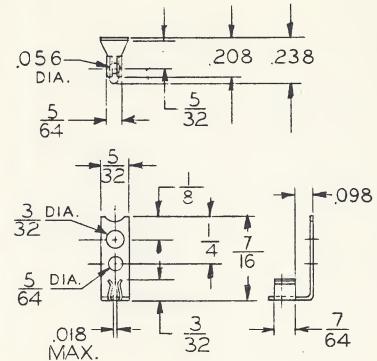
## **CONTACTS**



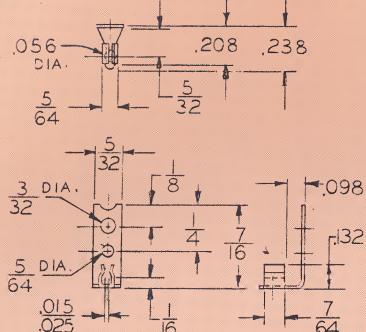
922 .0126 BRASS



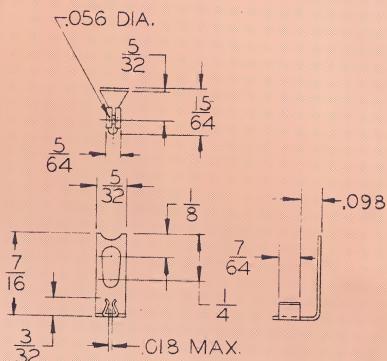
779 .0126 BRASS



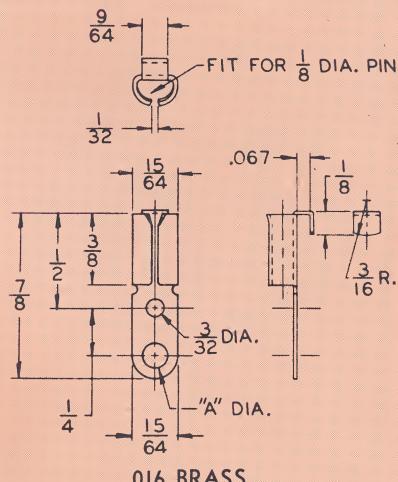
642 .0126 BRASS



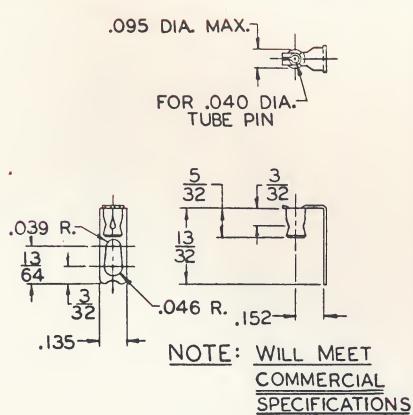
781 .0126 BRASS



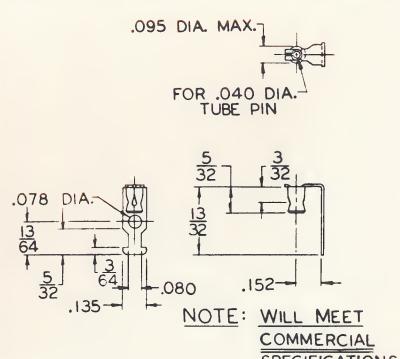
2116 .0126 BRASS



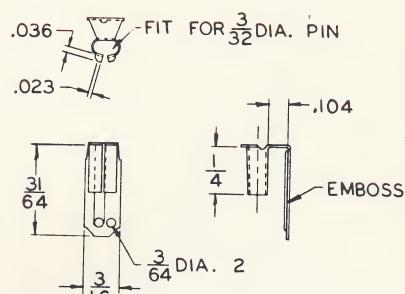
2141                     $\frac{3}{32}$   
2316                    136



2419 .0126 BRASS



2430 .0126 BRASS

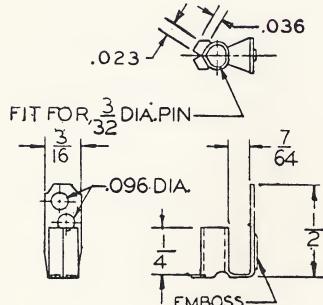


2362 .0106 BRASS

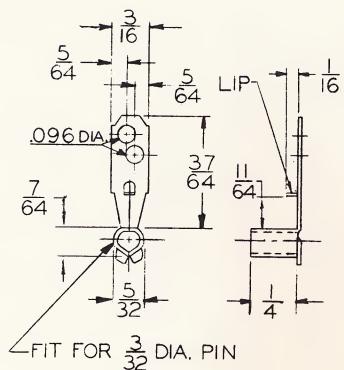
FULL SCALE ISSUE 10

**NOTE:** All parts supplied cadmium plated unless otherwise specified on order.

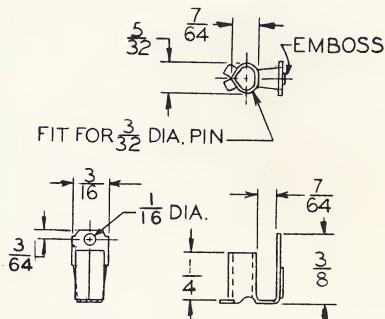
# CONTACTS



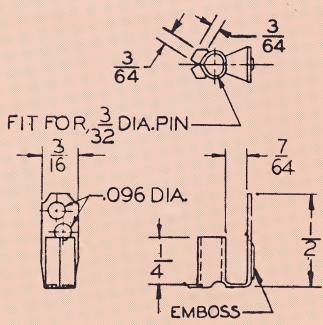
175 .0106 BRASS



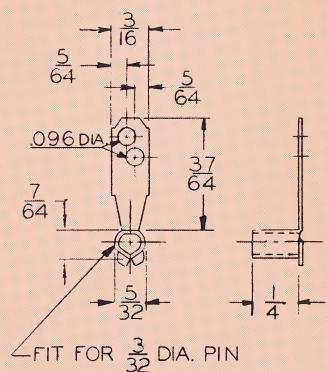
110 .0106 BRASS



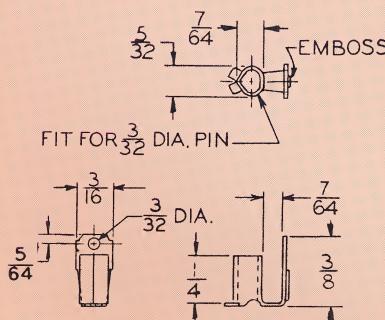
355 .0106 BRASS



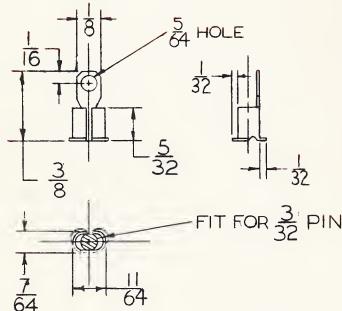
114 .0106 BRASS



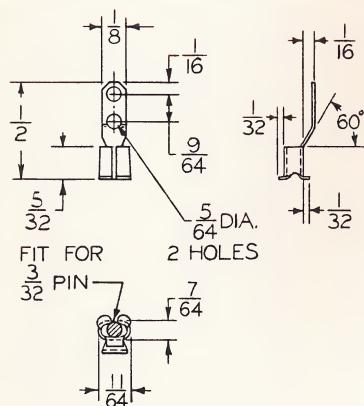
111 .0106 BRASS



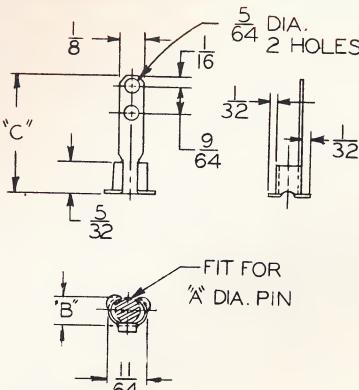
475 .0106 BRASS



300 .010 BRASS



1021 .010 BRASS



.010 BRASS

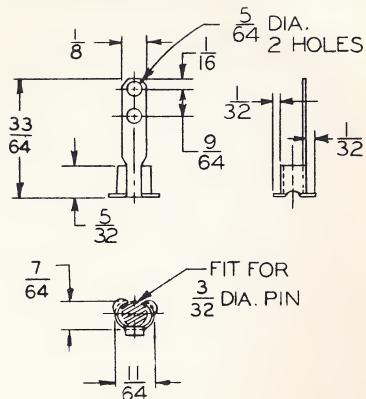
	"A"	"B"	"C"
299	3/32	7/64	33/64
946	3/32	7/64	5/8
947	1/8	1/8	5/8

FULL SCALE ISSUE 10

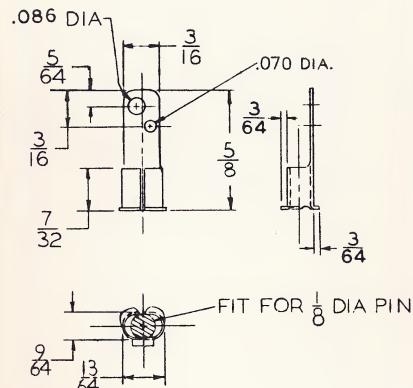
LT 10

NOTE: All parts supplied cadmium plated unless otherwise specified on order.

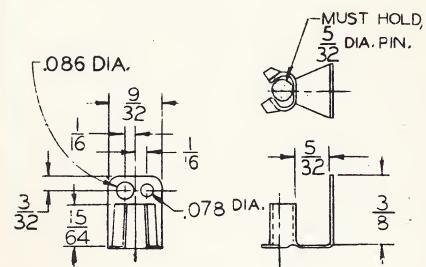
## CONTACTS



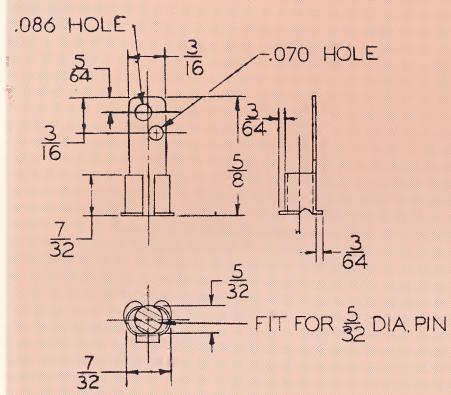
1298 .0135 BRASS



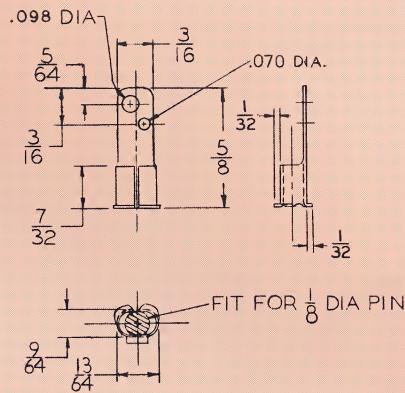
301 .0135 BRASS



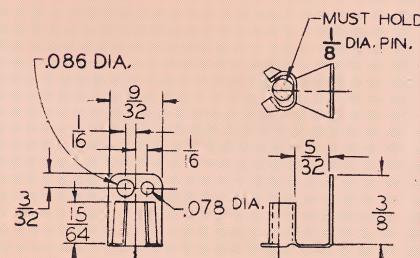
551 .010 BRASS



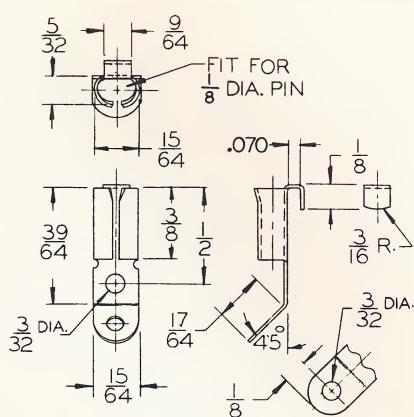
303 .0135 BRASS



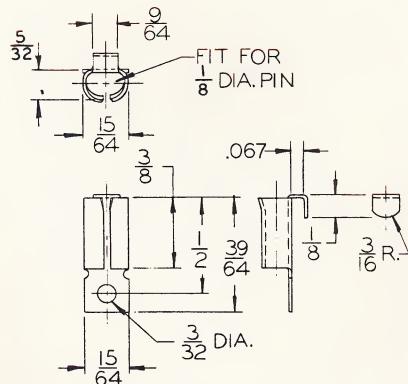
999 .0135 BRASS



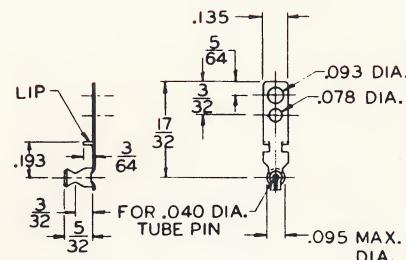
552 .010 BRASS



955 .016 BRASS

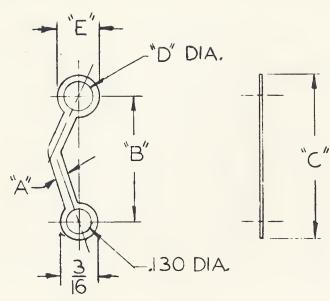


1528 .016 BRASS



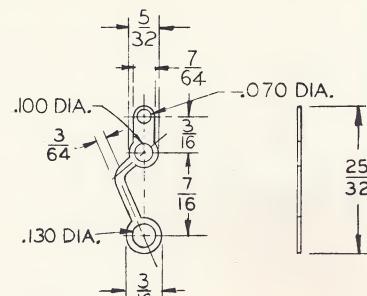
2402 .0126 BRASS

# **GROUND STRAPS SADDLES**

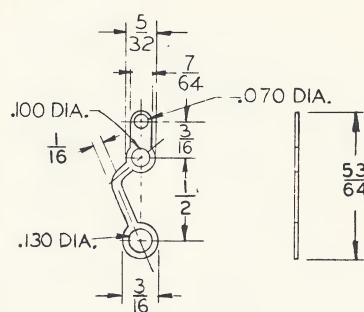


.010 BRASS

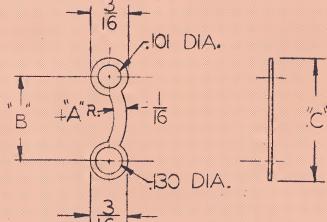
	"A"	"B"	"C"	"D"	"E"
217	$\frac{1}{6}$	$\frac{1}{2}$	$\frac{1}{16}$	.101	$\frac{3}{6}$
220	$\frac{3}{64}$	$\frac{7}{6}$	$\frac{3}{64}$	.102	$\frac{3}{6}$
424	$\frac{1}{6}$	$2\frac{1}{32}$	$\frac{55}{64}$	.150	$\frac{7}{32}$



310 .010 BRASS

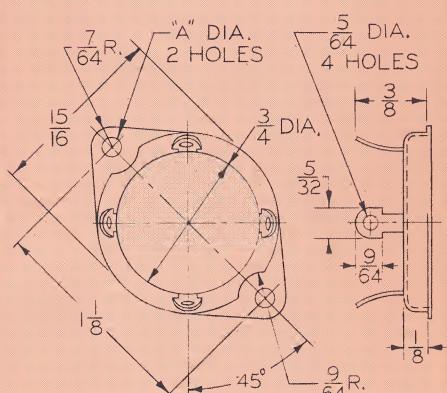


425 .010 BRASS



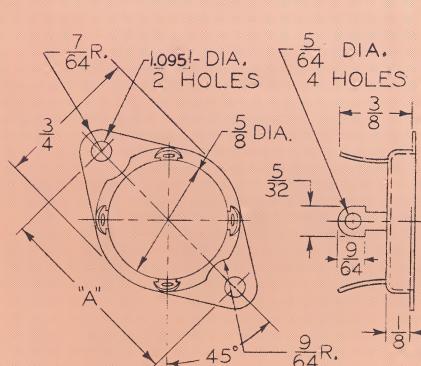
.010 BRASS

	"A"	"B"	"C"
115	$\frac{1}{2}$	$\frac{1}{16}$	$\frac{3}{4}$
182	$\frac{9}{12}$	$\frac{7}{16}$	$\frac{5}{8}$



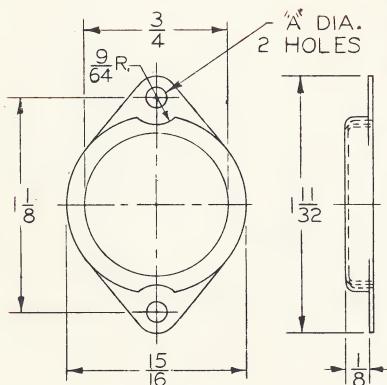
.012 STEEL

"A" .095  
125

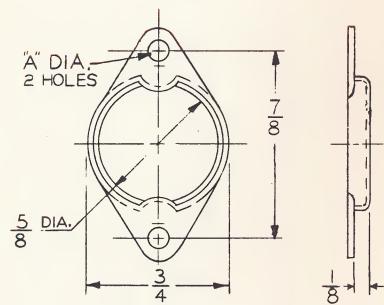


.012 STEEL

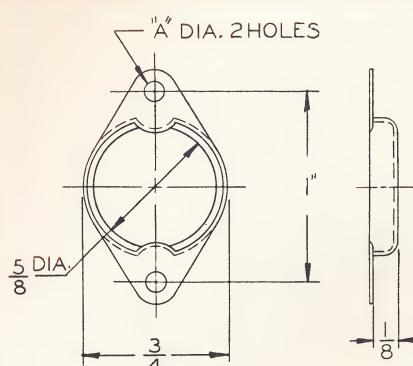
A  
7/8



590 .012 STEEL .095  
609 .012 STEEL .125



.010 STEEL  
"A"  
538 .095  
070 125

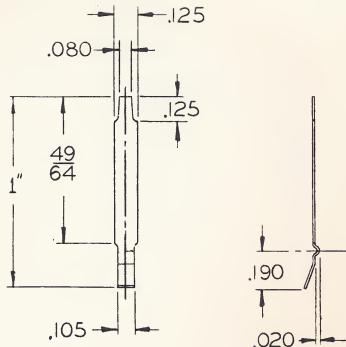


.010 STEEL	"A"
495	.095
1071	.125
.014 STEEL	
151	.095

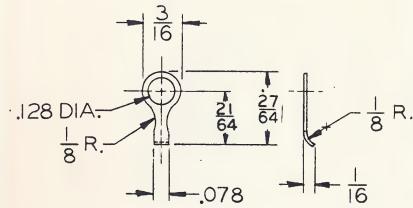
## FULL SCALE ISSUE 10

**LT 12** NOTE: All parts supplied cadmium plated unless otherwise specified on order.

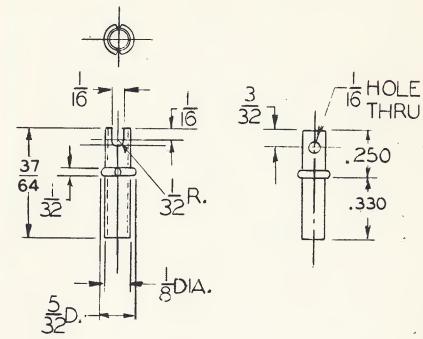
**GROUND STRAPS  
CENTER SHIELDS**



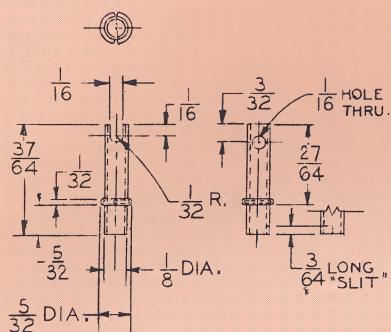
1470 .0126 BRASS



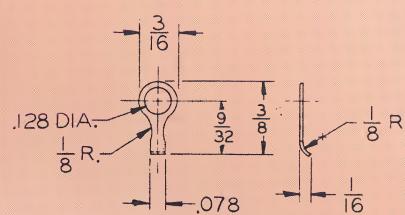
1665 .0126 BRASS



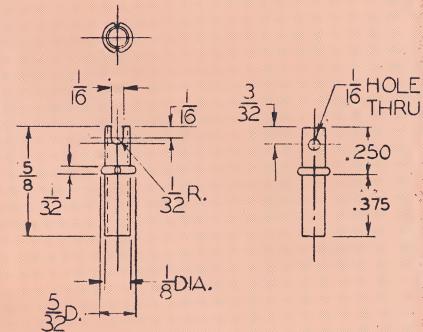
280 .010 BRASS



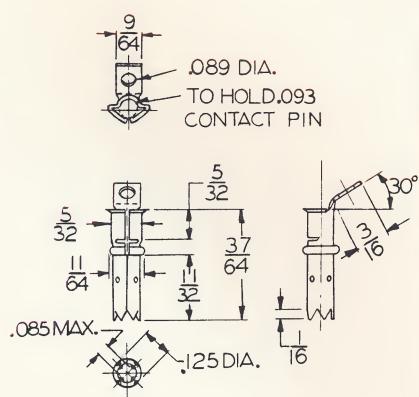
281  
5077-1 .010 BRASS  
.010 STEEL



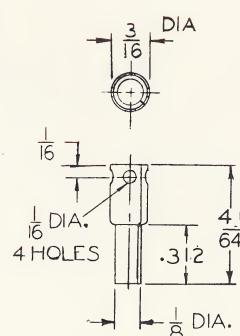
2122 .0126 BRASS



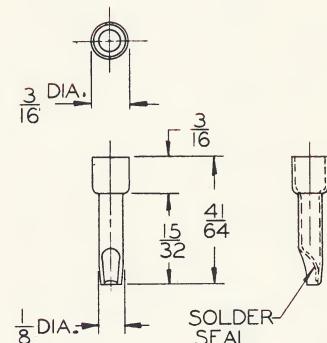
287 .010 BRASS



1134 .0135 BRASS



458 .010 BRASS

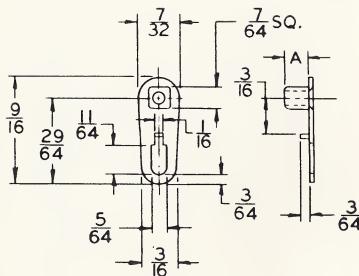


1439 .010 BRASS

**FULL SCALE ISSUE 10**

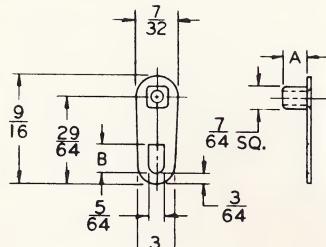
NOTE: All parts supplied cadmium plated unless otherwise specified on order.

# DRAWN SOLDERING LUGS



.017 BRASS

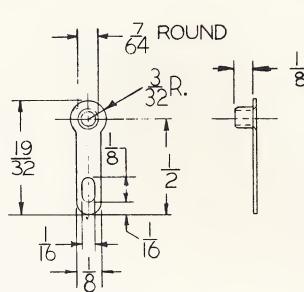
158	"A"	1/8"
235		5/32



.017 BRASS

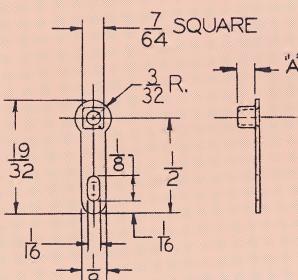
130*	"A"	1/8	"B"	1 1/64
236		5/32		1 1/64
2416		1/8		5/64

1488	"A"	1/8	"B"	1 1/64
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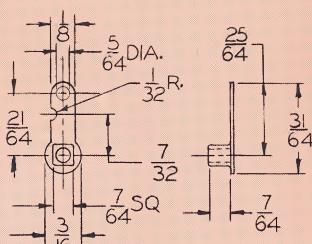
313

.016 BRASS

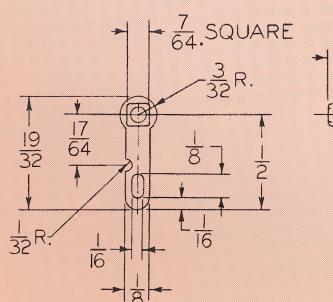


.016 BRASS

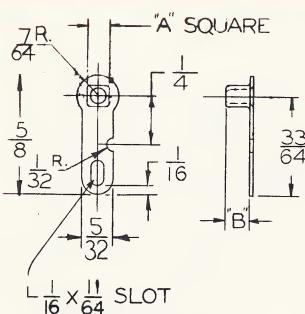
122	"A"	5/32
127		5/16
124		1/8
123		5/64



152 .016 BRASS



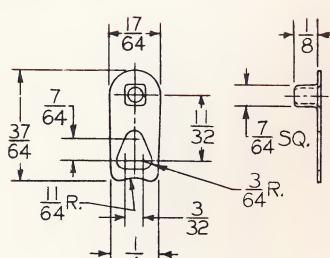
761 .016 BRASS



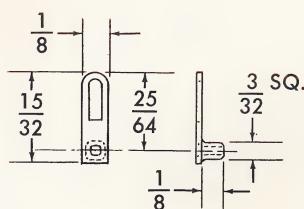
.016 BRASS

267*	"A"	5/64	"B"	5/64
138		5/32		1/8

.023 BRASS	"A"	5/64
270		5/32



1115 .017 BRASS



2308 .017 BRASS  
2309 .017 STEEL

\*Available in chain form (11037-1\*\*)

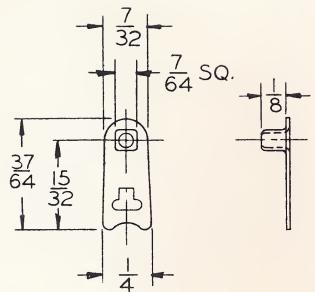
\*\*Tinned only

FULL SCALE ISSUE 10

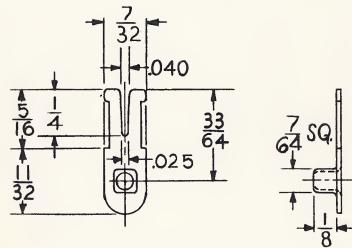
LT 14

NOTE: All parts supplied cadmium plated unless otherwise specified on order.

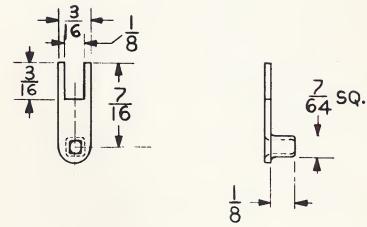
## DRAWN SOLDERING LUGS



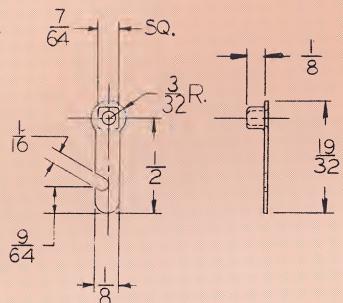
129 .017 BRASS



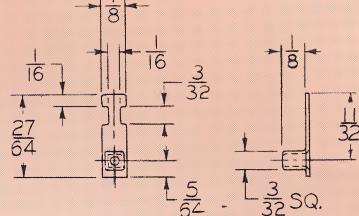
5028-I .025 STEEL



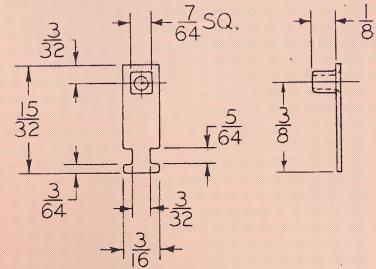
1213 .023 BRASS



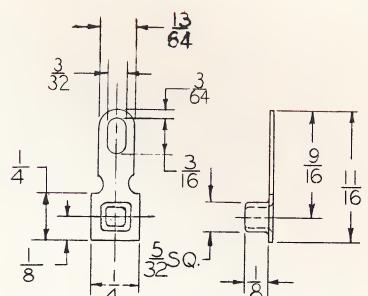
125 .023 BRASS



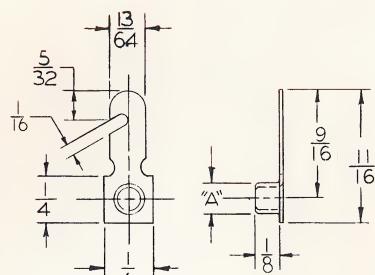
651 .017 BRASS



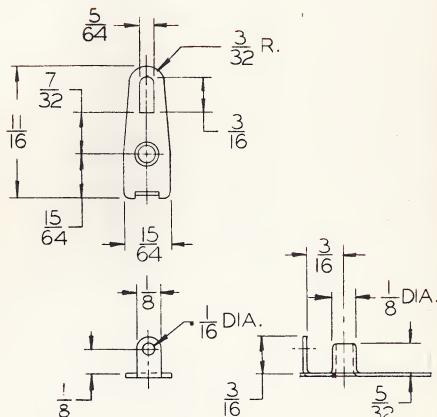
842 .023 BRASS



253 .024 BRASS



244  
252      "A"  
          5/32 ROUND  
          5/32 SQUARE

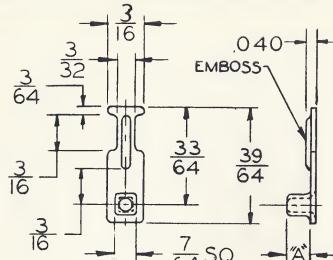


1434 .023 BRASS

## FULL SCALE ISSUE 10

NOTE: All parts supplied cadmium plated unless otherwise specified on order.

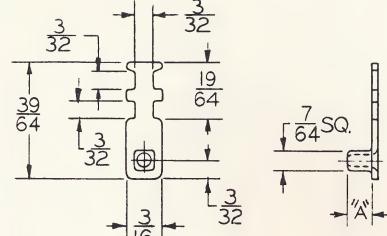
# DRAWN SOLDERING LUGS



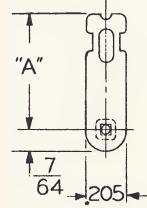
461 .017 BRASS  $\frac{1}{8}$   
1701 .017 STEEL  $\frac{1}{8}$

(NO EMBOSSED)

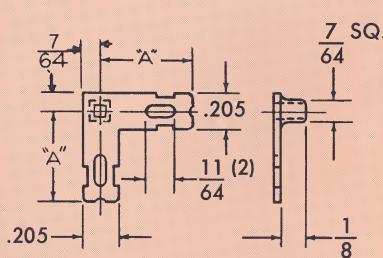
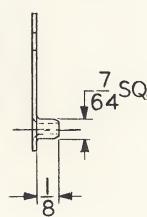
215 .023 BRASS  $\frac{1}{8}$   
421 .017 BRASS  $\frac{1}{8}$   
762 .023 BRASS  $\frac{3}{32}$   
985 .032 BRASS  $\frac{1}{6}$



1761 .023 BRASS  $\frac{5}{32}$   
978 .032 BRASS  $\frac{1}{8}$

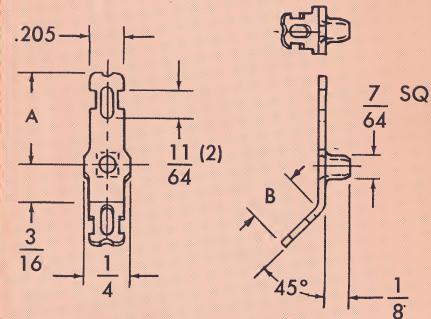


"A"  
2250 .020 BRASS  
2266 .020 STEEL  
2350 .020 BRASS  
2366 .020 STEEL



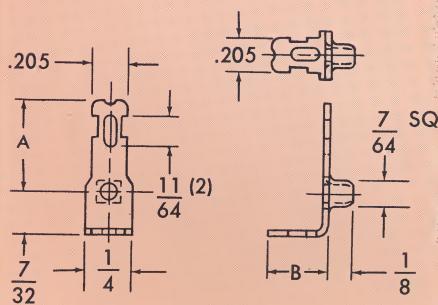
.020 STEEL

"A"  
2279  $\frac{3}{64}$   
2290  $\frac{3}{64}$



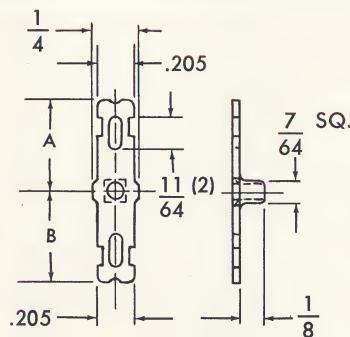
.020 STEEL

"A"  
5048-3  $\frac{3}{64}$   
5049-3  $\frac{3}{64}$   
5050-3  $\frac{3}{64}$   
5051-3  $\frac{3}{64}$



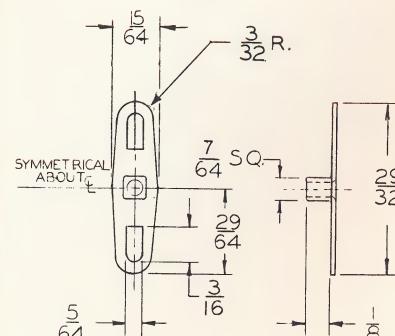
.020 STEEL

"A"  
5048-2  $\frac{3}{64}$   
5049-2  $\frac{3}{64}$   
5050-2  $\frac{3}{64}$   
5051-2  $\frac{3}{64}$

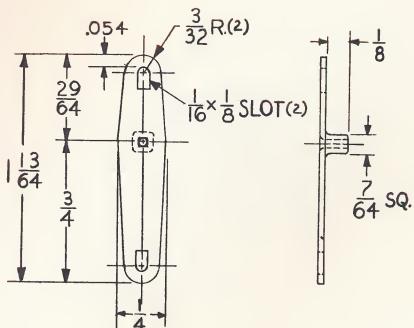


.020 STEEL

"A"  
5049-1  $\frac{3}{64}$   
5050-1  $\frac{3}{64}$   
5048-1  $\frac{3}{64}$



559 .017 BRASS  
2373 .018 STEEL



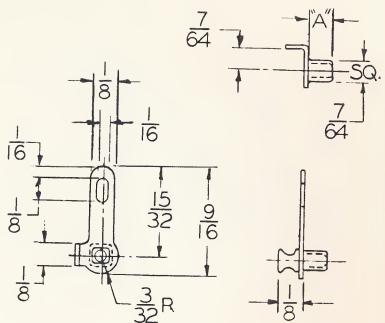
2246 .018 BRASS

FULL SCALE ISSUE 10

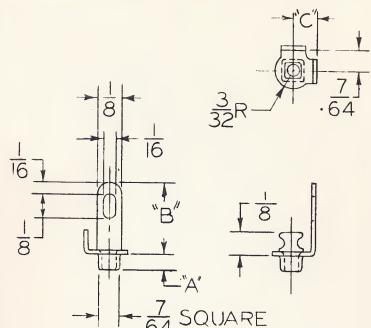
LT 16

NOTE: All parts supplied cadmium plated unless otherwise specified on order.

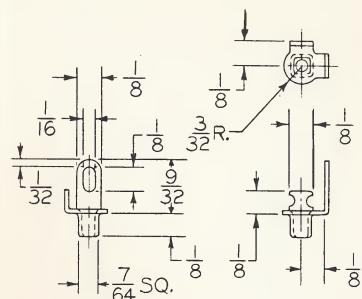
## DRAWN SOLDERING LUGS



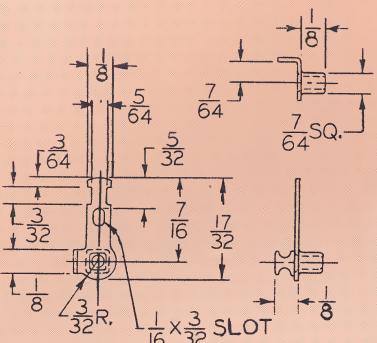
957 .020 BRASS "A"  
481 .020 BRASS  $\frac{5}{32}$



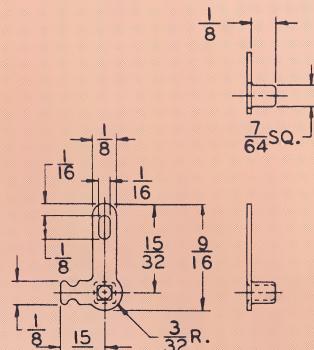
473 ".A"  $\frac{1}{8}$  ".B"  $\frac{3}{8}$  ".C"  $\frac{1}{8}$   
474  $\frac{1}{8}$   $\frac{5}{16}$   $\frac{3}{16}$   
930  $\frac{5}{32}$   $\frac{5}{16}$   $\frac{3}{16}$



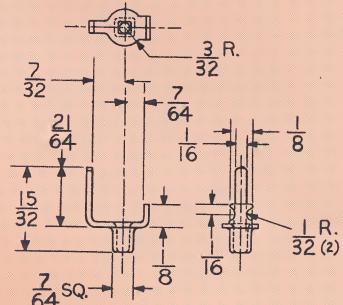
678 .020 BRASS



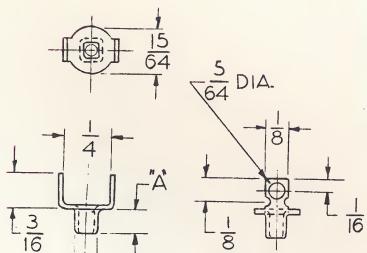
524 .020 BRASS



483 .020 BRASS

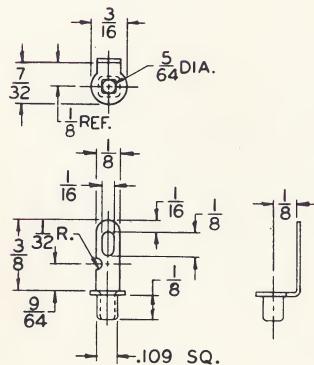


2204 .020 Steel

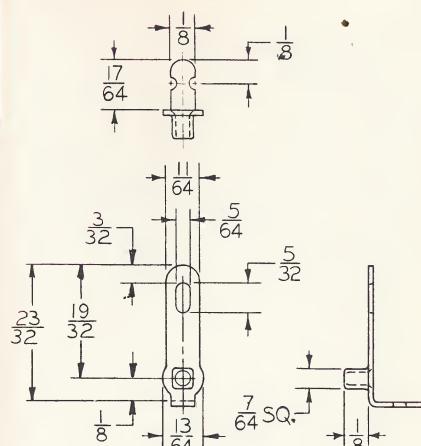


.017 BRASS

"A"  $\frac{1}{8}$  ".B"  $\frac{109}{115}$  Sq. Barrel  
861  $\frac{1}{8}$  .109 Sq. Barrel  
862  $\frac{1}{8}$  .115 Sq. Barrel  
669  $\frac{5}{32}$  .109 Sq. Barrel  
863  $\frac{5}{32}$  .115 Sq. Barrel



2401 .023 BRASS

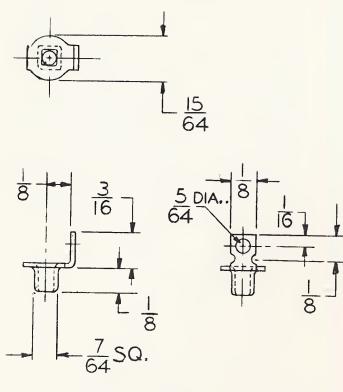


952 .023 BRASS

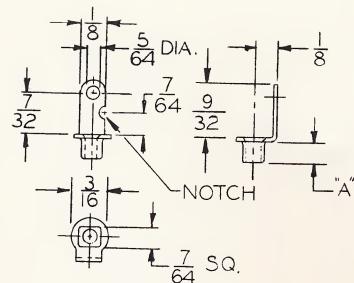
FULL SCALE ISSUE 10

NOTE: All parts supplied cadmium plated unless otherwise specified on order.

# DRAWN SOLDERING LUGS

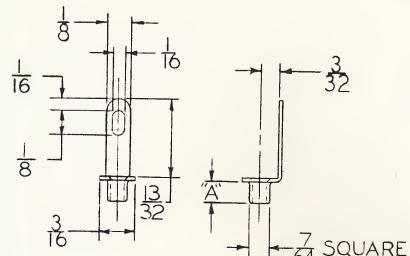


324 .017 BRASS



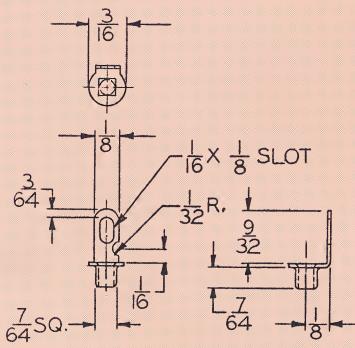
.016 BRASS

"A"  
 353       $\frac{7}{64}$   
 1913       $\frac{9}{64}$   
 656       $\frac{7}{64}$  LESS NOTCH  
 354       $\frac{5}{32}$  LESS NOTCH

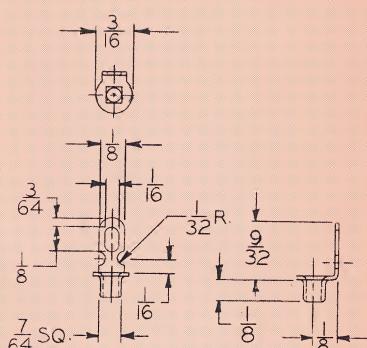


.016 BRASS

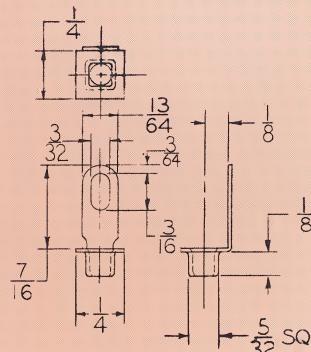
"A"  
1/8  
9/64



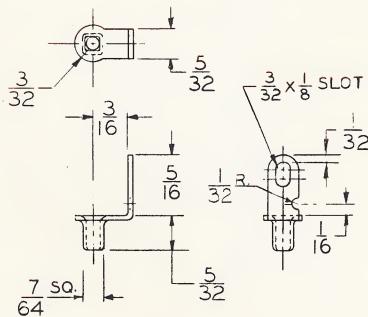
673 .016 BRASS



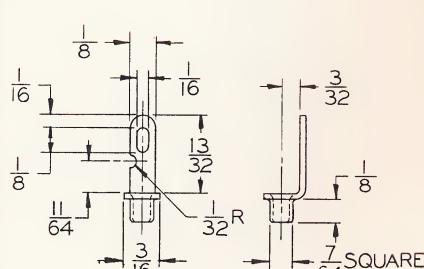
1500 .016 BRASS  
958 .023 BRASS



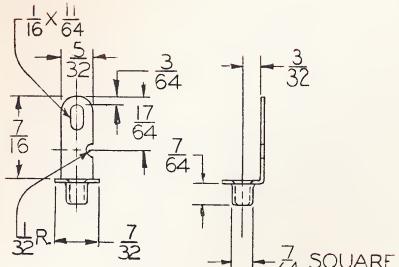
234 .024 BRASS



981 .020 BRASS



953 .023 BRASS



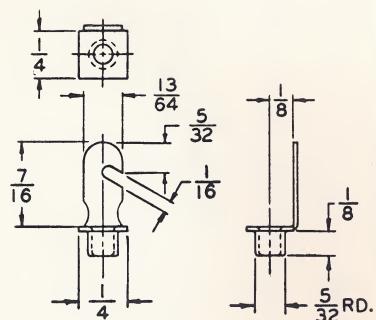
269 .016 BRASS  
273 .023 BRASS

**FULL SCALE ISSUE 10**

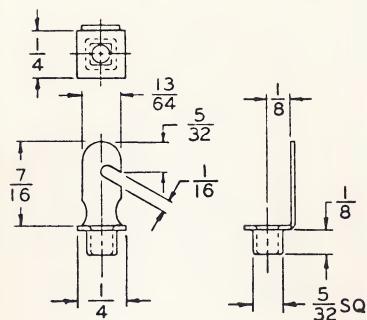
LT18

**NOTE:** All parts supplied cadmium plated unless otherwise specified on order.

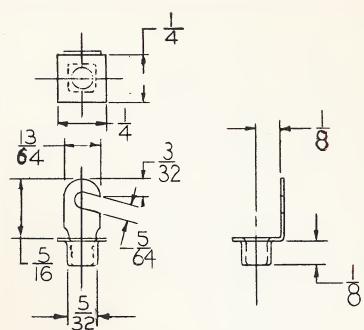
## DRAWN SOLDERING LUGS



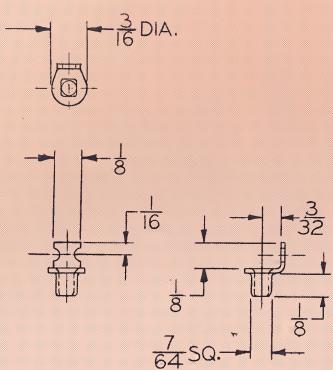
246 .024 BRASS



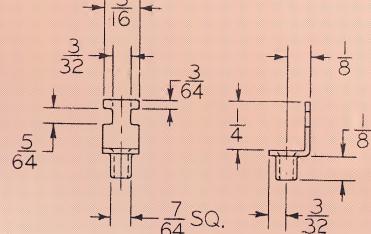
233 .024 BRASS



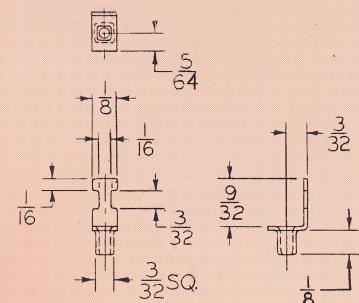
276 .024 BRASS



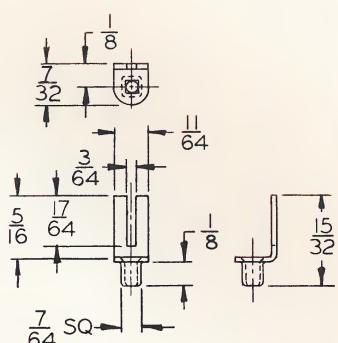
772 .017 BRASS



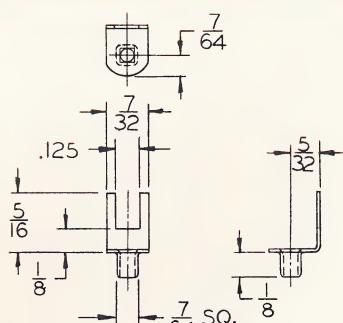
843 .023 BRASS



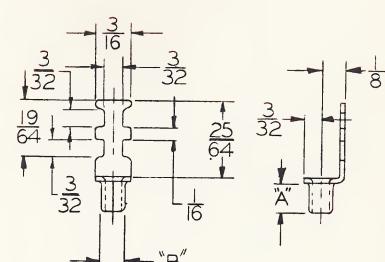
652 .017 BRASS



601 .023 BRASS



1214 .018 BRASS

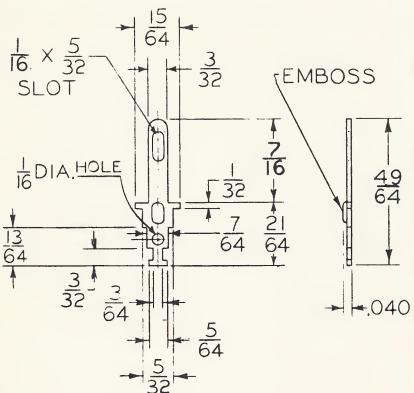


.023 BRASS  
"A" "B"  
176  $\frac{1}{8}$   $\frac{5}{32}$  Square  
177  $\frac{1}{8}$   $\frac{5}{32}$  Round

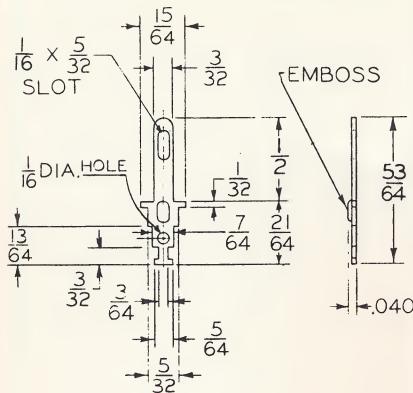
## FULL SCALE ISSUE 10

NOTE: All parts supplied cadmium plated unless otherwise specified on order.

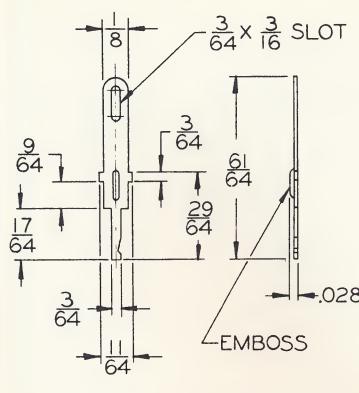
# **FEED THRU TERMINALS**



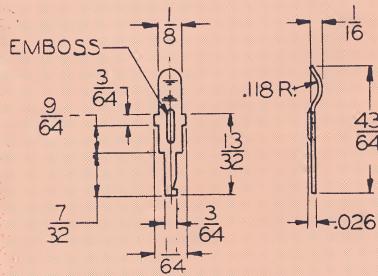
577 .024 BRASS



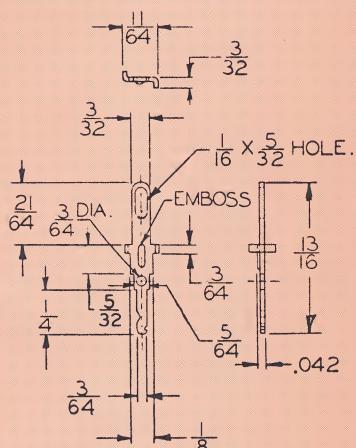
633 .024 BRASS



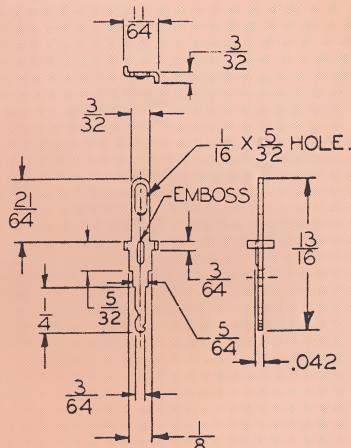
1101 .016 BRASS



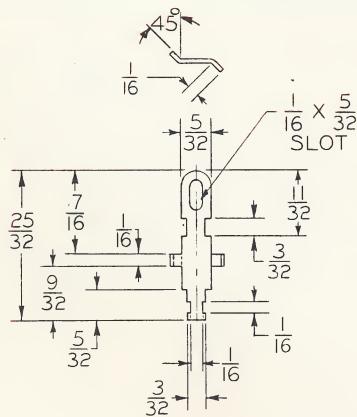
**472 .016 BRASS**



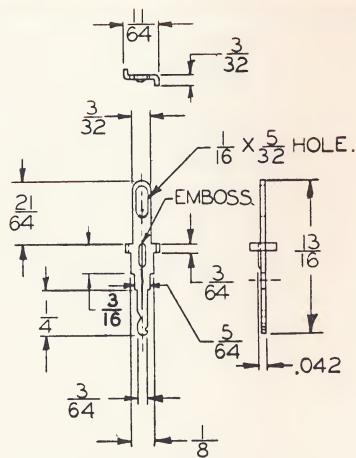
966 .024 BRASS



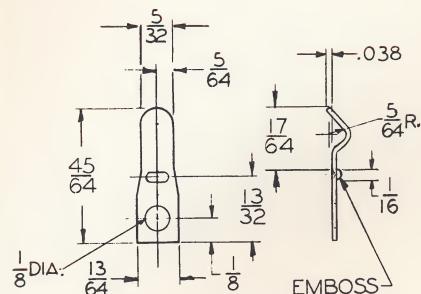
356 .024 BRASS



632 .024 BRASS



1941 .024 BRASS

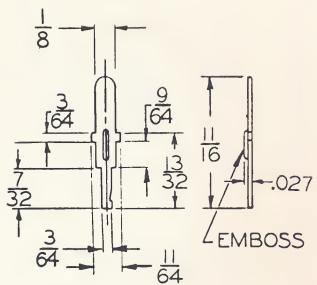


471 .020 BRASS

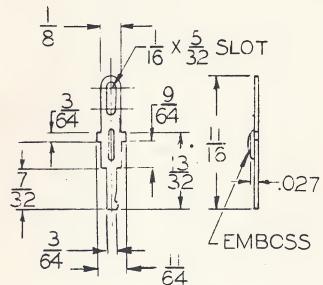
**FULL SCALE ISSUE 10**

**LT 20** NOTE: All parts supplied cadmium plated unless otherwise specified on order.

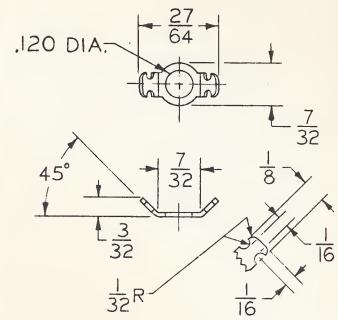
## TERMINALS



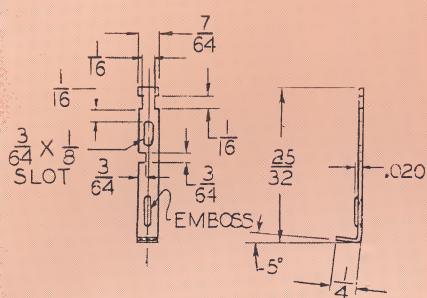
469 .016 BRASS



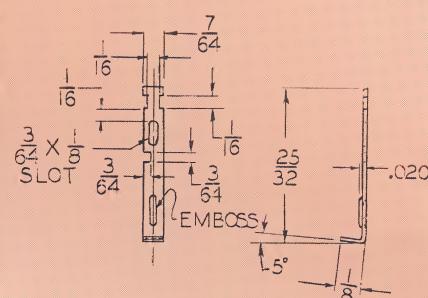
1078 .016 BRASS



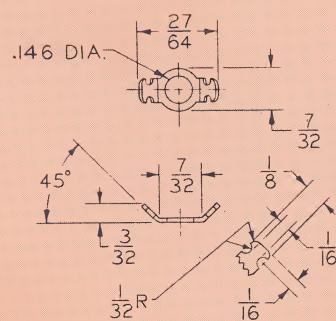
676 .016 BRASS



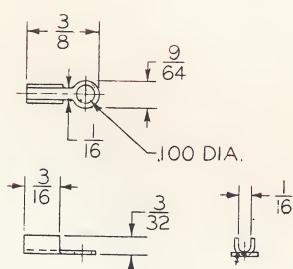
1085 .014 BRASS



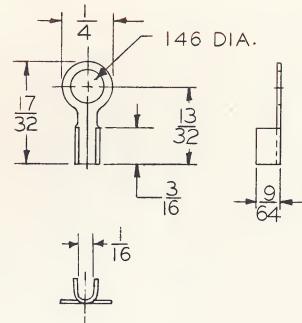
1155 .014 BRASS



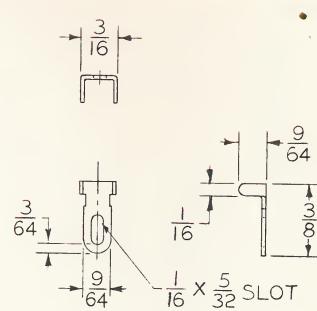
677 .016 BRASS



944 .017 BRASS



2127 .032 COPPER

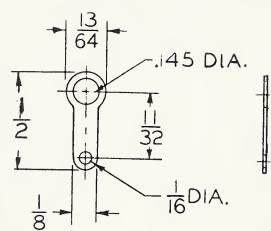


600 .022 BRASS

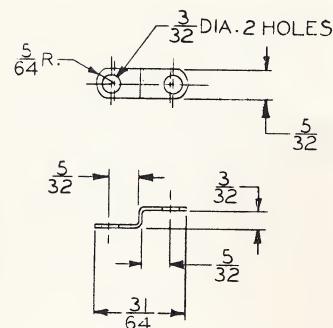
**FULL SCALE ISSUE 10**

NOTE: All parts supplied cadmium plated unless otherwise specified on order.

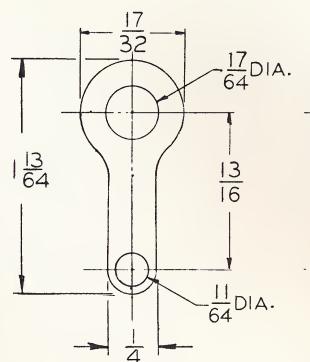
# SOLDERING TERMINALS



660 .013 BRASS

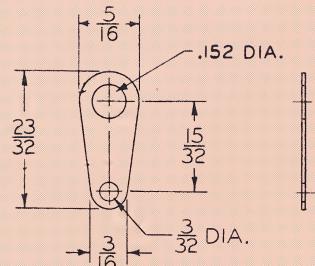


675 .0135 BRASS

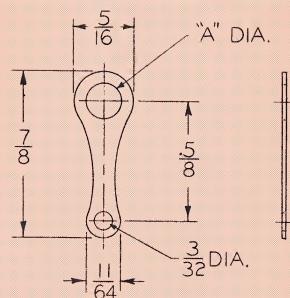


1135 .020 STEEL\*

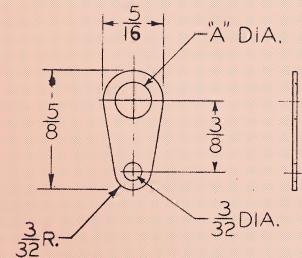
\* UNPLATED ONLY



782 .016 BRASS

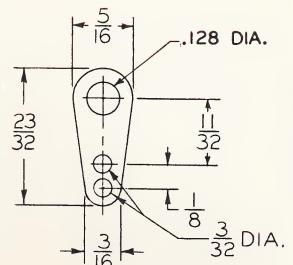


713	.017 STEEL	.120	"A"
715	.016 BRASS	.146	"A"
747	.023 BRASS	.146	"A"
718	.016 BRASS	.172	"A"
719	.017 STEEL	.172	"A"
753	.023 BRASS	.172	"A"
721	.016 BRASS	.200	"A"

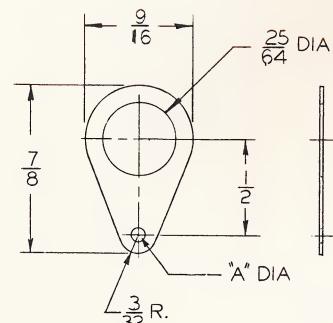


.016 BRASS

723	.126
727	.152
730	.178
733	.206

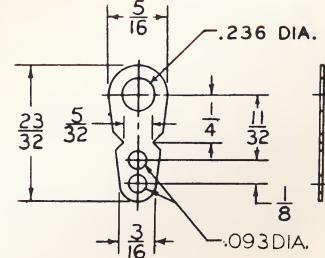


2117 .016 BRASS



.016 BRASS

872	"A"
1547	.072
	.093

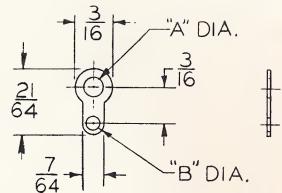


499 .016 BRASS

FULL SCALE ISSUE 10

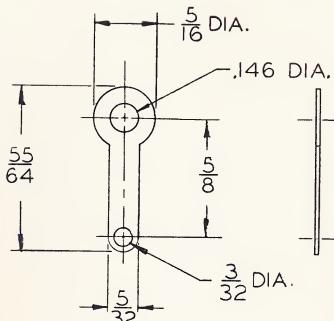
LT 22 NOTE: All parts supplied cadmium plated unless otherwise specified on order.

## SOLDERING TERMINALS

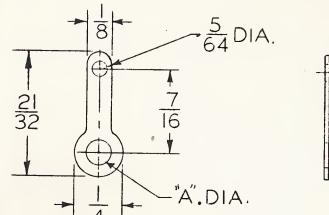


.016 BRASS

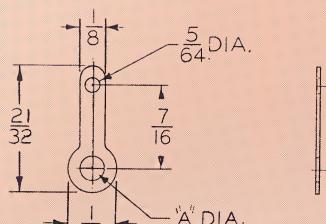
	"A"	"B"
924	.088	.052
755	.093	.046
754	.110	.078
464	.125	.078
1912	.069	.040



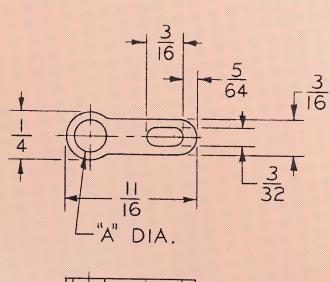
703 .016 BRASS  
704 .017 STEEL



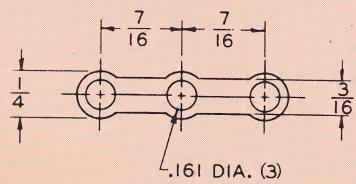
620 .023 BRASS "A"  
622 .023 BRASS .172  
1757 .010 BRASS .172



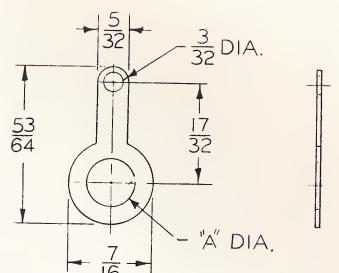
.016 BRASS  
"A"  
1389 .092  
616 .120  
617 .130  
619 .146  
621 .171



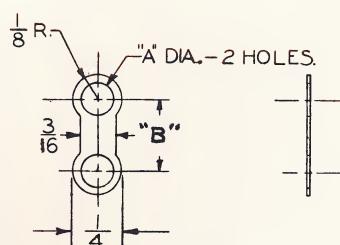
476 .016 BRASS "A"  
774 .025 COPPER .140  
773 .025 COPPER .180



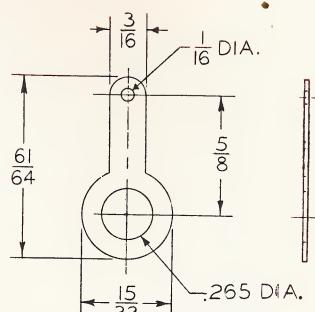
5020-1 .016 BRASS



2115 .016 BRASS .203  
604 .023 BRASS .328

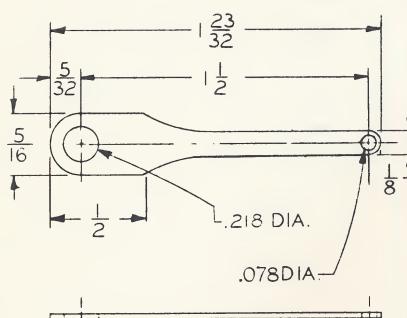


933 .016 BRASS "A" .161 5/8"  
983 .040 COPPER .130 5/8"  
5020-2 .016 BRASS .161 5/8"  
5020-3 .016 BRASS .161 5/8"

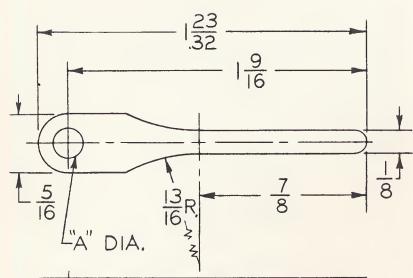


688 .023 BRASS

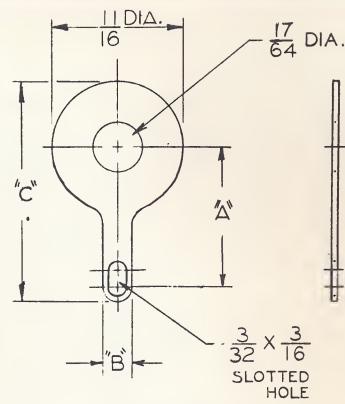
# SOLDERING TERMINALS



679 .020 COPPER



326	.014 STEEL	"A"
690	.020 STEEL	.146
580	.020 COPPER	.146
691	.020 STEEL	.172
692	.020 STEEL	.200

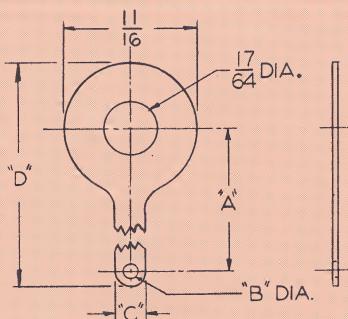


.020 BRASS \*

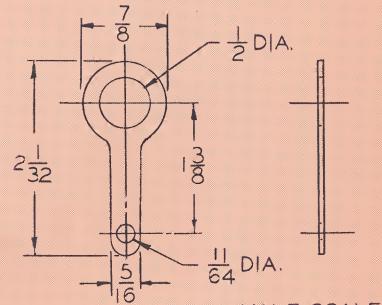
"A" "B" "C"  
47/64 5/32 1 5/32

.020 STEEL \*

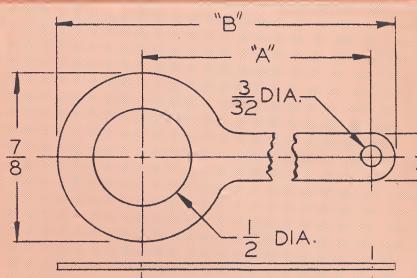
47/64 5/32 1 5/32  
1045 2 7/32 3/16 1 5/32  
1024 1 5/64 3/16 1 3/4



492	.020 BRASS *
	"A" "B" "C" "D"
1025	47/64 5/64 5/32 1 5/32
	1 5/64 3/32 3/16 1 33/64
491	.020 STEEL *
1044	47/64 5/64 5/32 1 5/32
1023	2 7/32 3/32 3/16 1 33/64
2120	.020 COPPER *
	2 7/32 3/32 3/16 1 5/32



HALF SCALE



.020 BRASS \*

"A" "B"  
1 5/16 1 5/8

.020 STEEL \*

2 1/2 3 1/4

1061 1 5/16 1 5/8

1039 1 13/32 1 3/32

1018 2 2 1/4

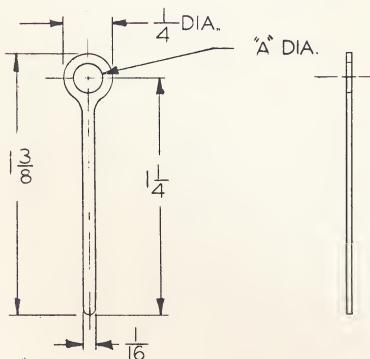
1019 2 1/2 3 1/4

.025 STEEL \*

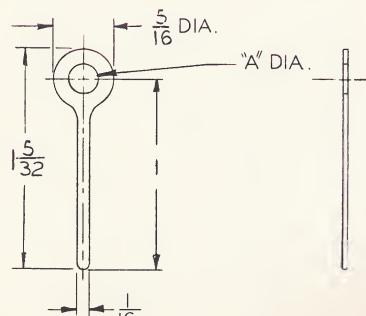
1139 1 5/8 2 1/4

1016 2 2 1/4

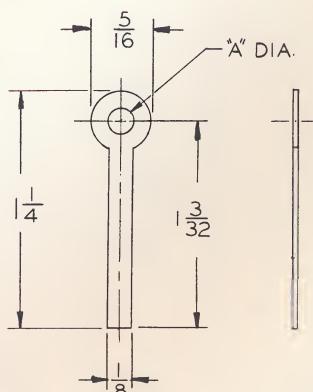
1017 2 1/2 3 1/4



451 .020 BRASS .136  
996 .020 COPPER .146



770 .020 COPPER .146  
219 .020 COPPER .172  
1181 .020 STEEL (.LESS HOLE)

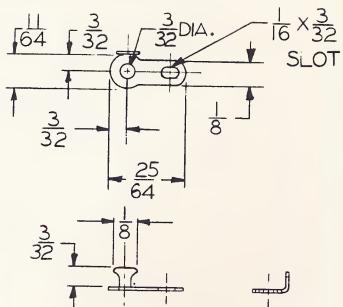


973 .020 BRASS .120  
975 .020 BRASS .172  
1451 .040 COPPER .172

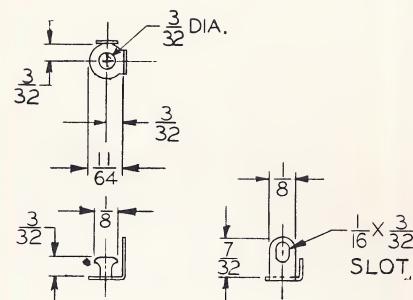
**FULL SCALE ISSUE 10**

**LT 24** \*Note: Unplated only. All other parts supplied cadmium plated unless otherwise specified on order.

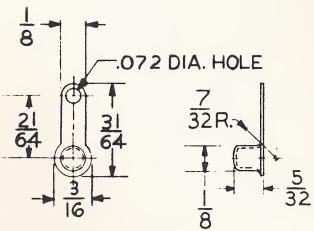
## SOLDERING TERMINALS



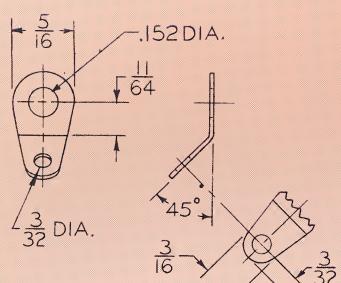
987 .016 BRASS



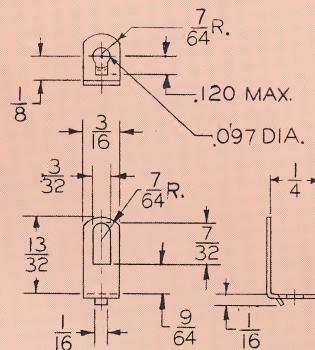
859 .016 BRASS



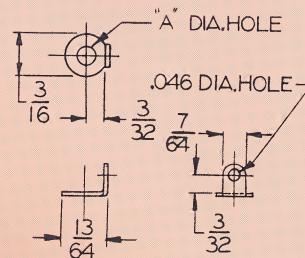
868 .017 BRASS



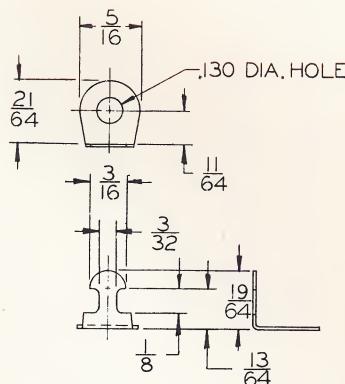
749 .016 BRASS



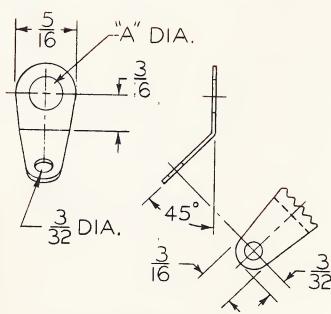
757 .020 STEEL



.017 BRASS  
1030 .093  
756 .123

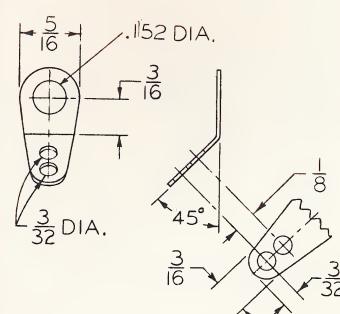


1471 .016 BRASS



.016 BRASS

"A"  
463 .135  
788 .152

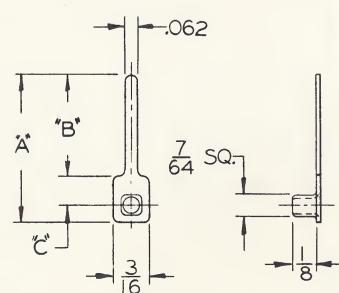


800 .016 BRASS

## FULL SCALE ISSUE 10

NOTE: All parts supplied cadmium plated unless otherwise specified on order.

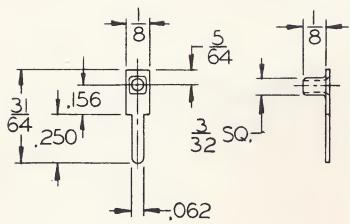
# TERMINALS, NON-SOLDERING



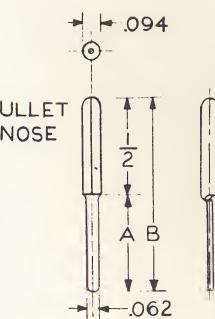
.025 STEEL

"A"	"B"	"C"
$\frac{25}{32}$	$\frac{17}{32}$	$\frac{5}{32}$
$\frac{1}{8}$	$\frac{5}{8}$	$\frac{3}{16}$

1474  
2182



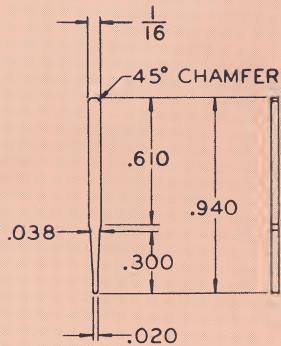
1476 .017 BRASS



.025 BRASS

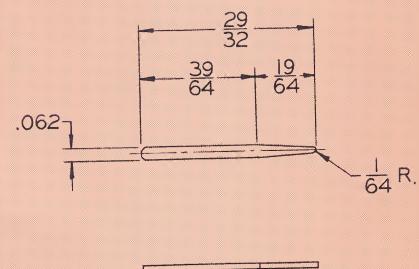
"A"	"B"
$\frac{3}{8}$	$\frac{7}{8}$
$\frac{5}{8}$	$1\frac{1}{8}$

2261  
2262



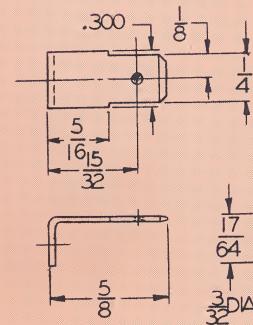
5003-I

.032 BRASS



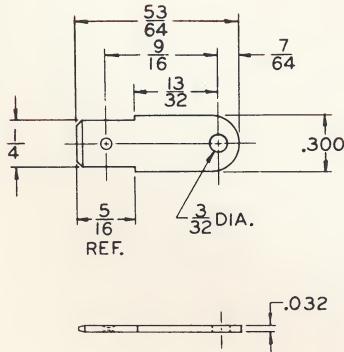
1533

.032 BRASS



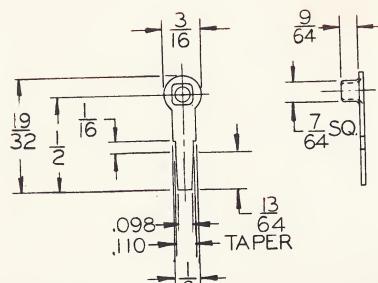
1091

.032 PRE-TINNED BRASS



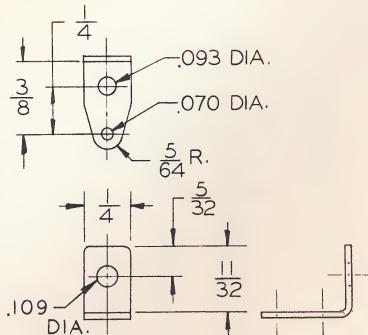
2391

.032 PRE-TINNED BRASS



1705  
2181

.020 BRASS  
.016 BRASS



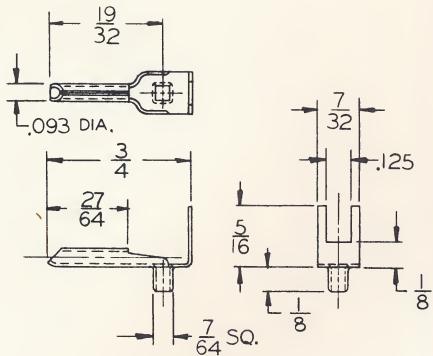
1774

.032 BRASS

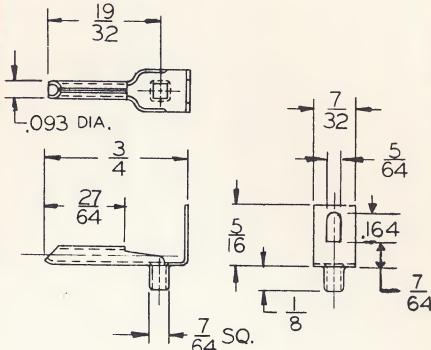
FULL SCALE ISSUE 10

LT 26 NOTE: All parts supplied cadmium plated unless otherwise specified on order.

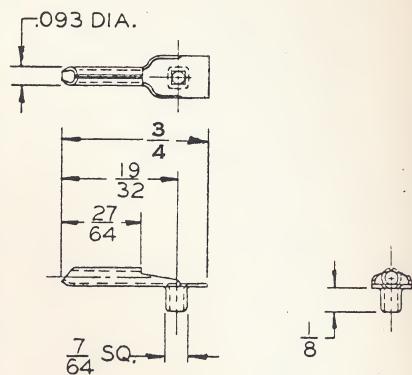
**TERMINALS  
CORONA RINGS**



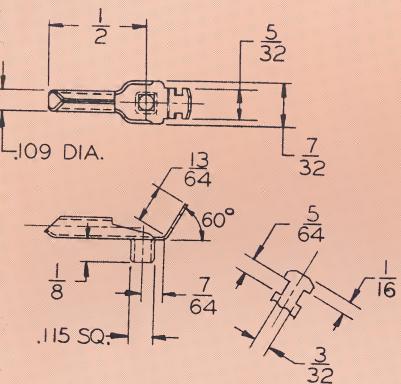
1544 .018 BRASS



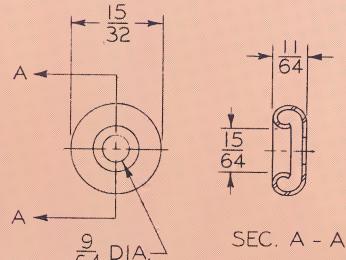
2343 .018 BRASS



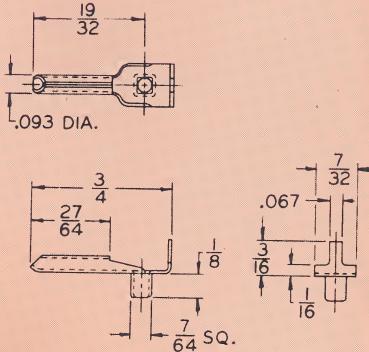
2152 .018 TINNED BRASS



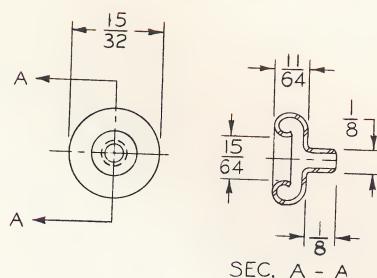
1565 .018 BRASS



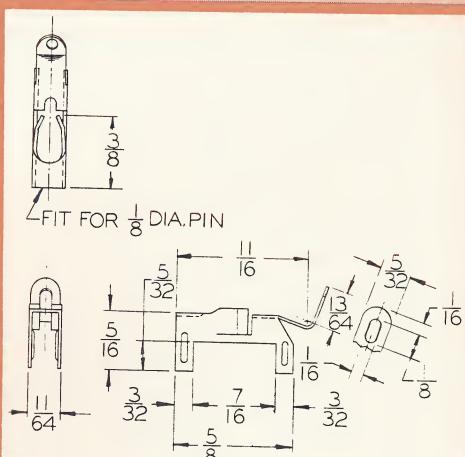
596 .020 BRASS



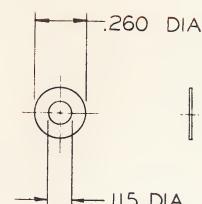
2303 .018 BRASS



597 .020 BRASS



121 .0126 BRASS

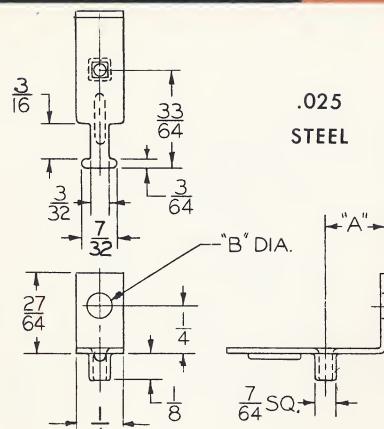


1713 .0126 BRASS

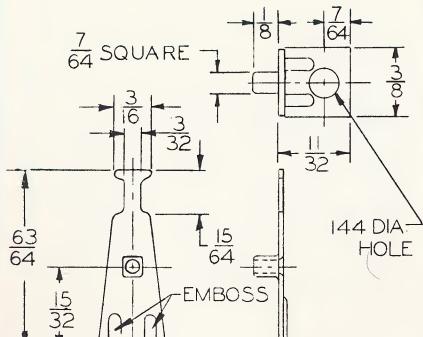
**FULL SCALE ISSUE 10**

NOTE: All parts supplied cadmium plated unless otherwise specified on order.

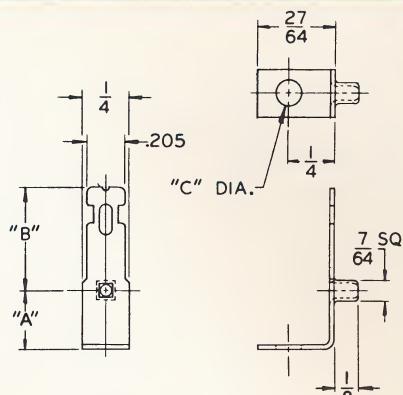
# BRACKETS



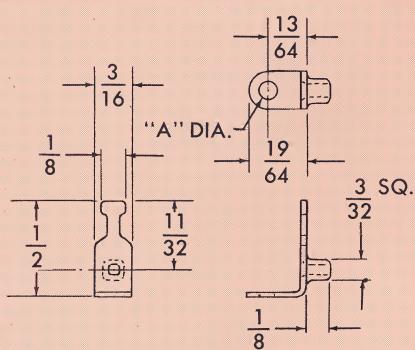
	"A"	"B"
5023-4	7/32	.144
5023-5	5/16	.144
5023-6	7/16	.144
5023-10	7/32	.169
5023-11	5/16	.169
5023-12	7/16	.169
5023-15	7/16	.187



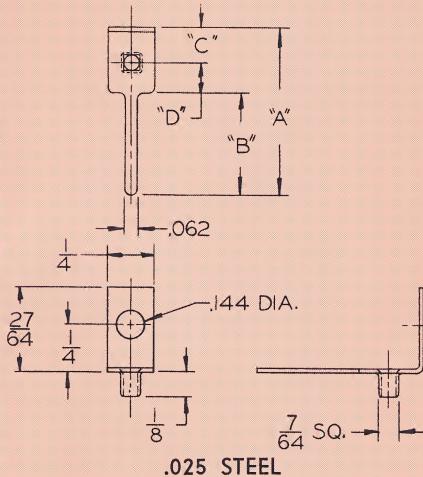
.025 STEEL  
572 1419 LESS HOLE



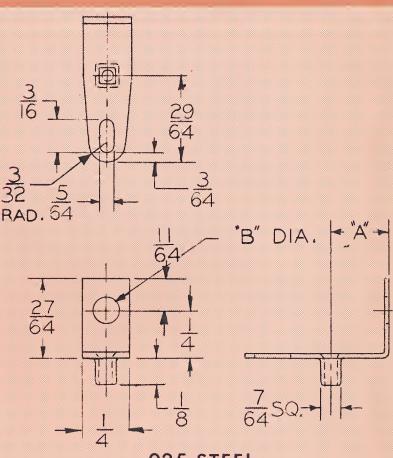
	"A"	"B"	"C"
5026-4	7/32	3 1/64	.144
5026-5	5/16	3 1/64	.144
5026-6	7/16	3 1/64	.144
5026-10	7/32	3 1/64	.169
5030-5	5/16	3 1/64	.144
5030-6	7/16	3 1/64	.144



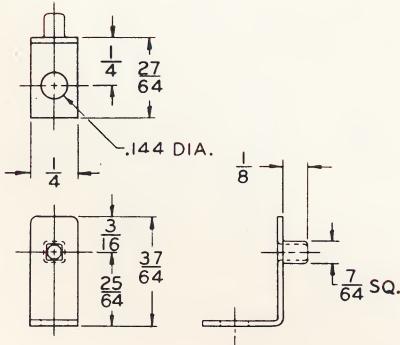
.020 STEEL  
"A"  
2312 .093  
2339 .127



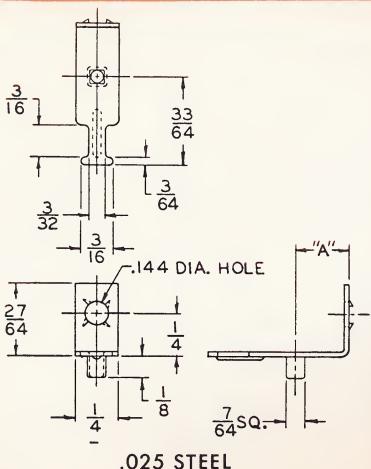
.025 STEEL  
"A" "B" "C" "D"  
1502 2186



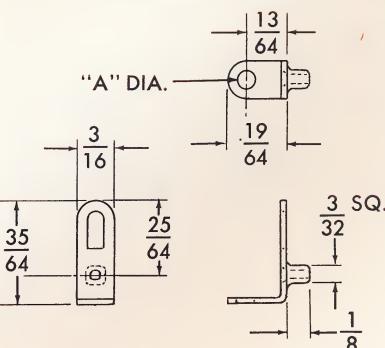
.025 STEEL  
"A" "B"  
5024-4 7/32 .144  
5024-5 5/16 .144  
5024-6 7/16 .144  
5024-10 7/32 .169  
5024-12 7/16 .169



2372 .025 STEEL



.025 STEEL  
"A"  
5023-7 7/32"  
5023-14 5/16"  
5023-18 7/16"

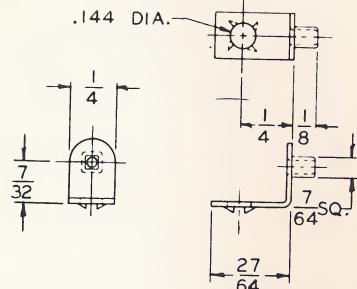


.020 STEEL  
"A"  
2311 .093  
2326 .127

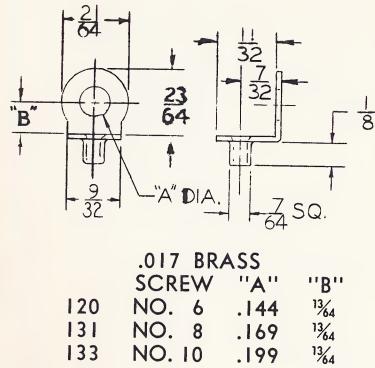
FULL SCALE ISSUE 10

LT 28 NOTE: All parts supplied cadmium plated unless otherwise specified on order.

## BRACKETS

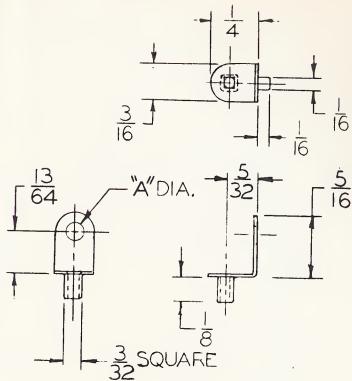


5025-19 .025 STEEL

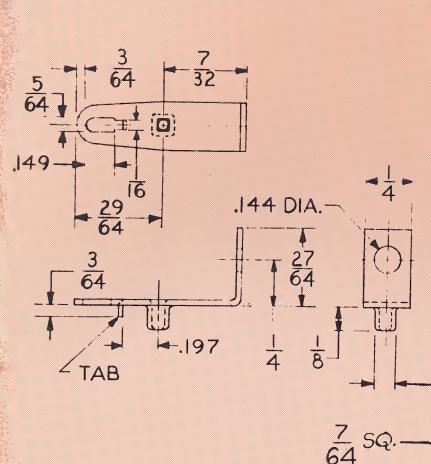


.017 BRASS SCREW "A" "B"  
120 NO. 6 .144 13/64  
131 NO. 8 .169 13/64  
133 NO. 10 .199 13/64

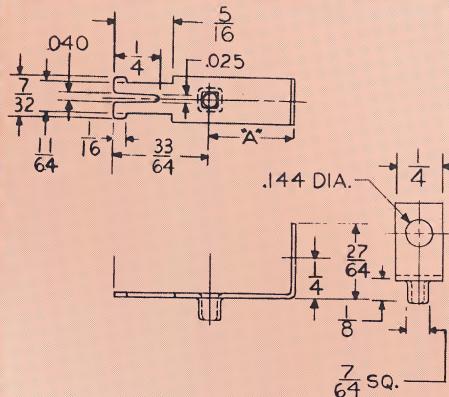
.018 STEEL  
1146 NO. 6 .144 13/64  
.025 STEEL  
1630 NO. 6 .144 13/32



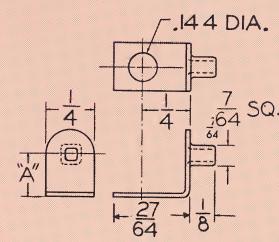
.022 BRASS "A"  
444 .095  
921 .127



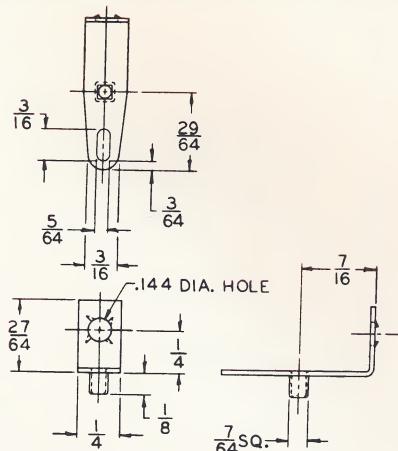
5024-13 .025 STEEL



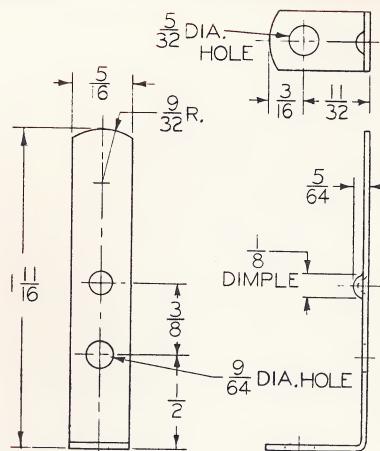
.025 STEEL "A"  
5029-4 7/32  
5029-5 5/16  
5029-6 7/16



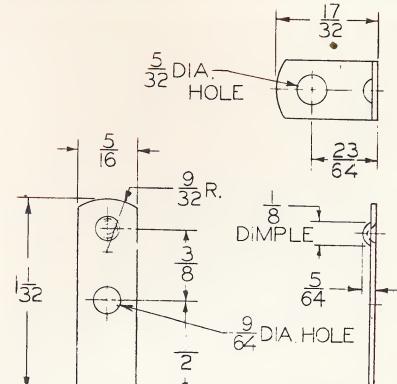
.025 STEEL "A"  
5025-6 7/16  
5025-5 5/16  
5025-4 7/32



5024-14 .025 STEEL

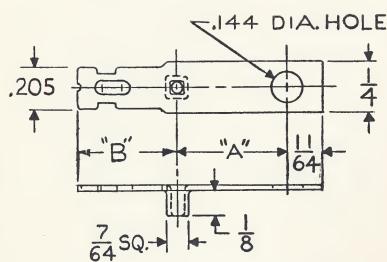


322 .032 STEEL

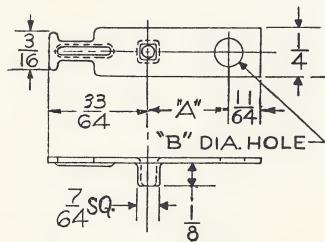


321 .032 STEEL

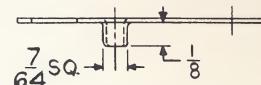
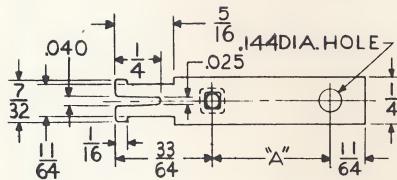
# BRACKETS



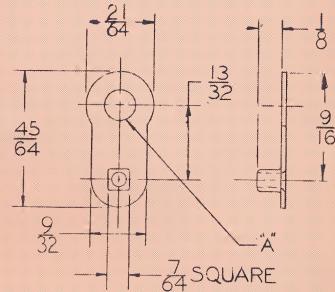
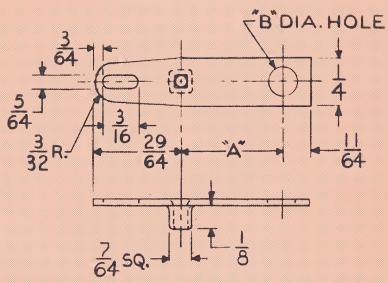
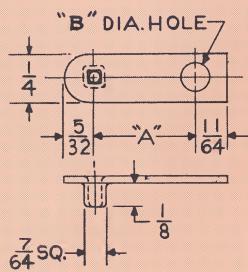
	.025 STEEL	
	"A"	"B"
5026-1	$\frac{27}{64}$	$\frac{31}{64}$
5026-2	$\frac{33}{64}$	$\frac{31}{64}$
5026-3	$\frac{41}{64}$	$\frac{31}{64}$
5030-2	$\frac{33}{64}$	$\frac{31}{64}$
5030-3	$\frac{41}{64}$	$\frac{31}{64}$



	.025 STEEL	
	"A"	"B"
5023-1	$\frac{27}{64}$	.144
5023-2	$\frac{33}{64}$	.144
5023-3	$\frac{41}{64}$	.144
5023-8	$\frac{33}{64}$	.169
5023-9	$\frac{41}{64}$	.169
5023-13	$\frac{27}{64}$	.169
5023-16	$\frac{33}{64}$	.187
5023-17	$\frac{27}{64}$	.187



	.025 STEEL	
	"A"	
5029-1		$\frac{27}{64}$
5029-2		$\frac{33}{64}$
5029-3		$\frac{41}{64}$



## .025 STEEL

	"A"	"B"
5025-1	$\frac{27}{64}$	.144
5025-2	$\frac{33}{64}$	.144
5025-3	$\frac{41}{64}$	.144
5025-8	$\frac{33}{64}$	.169

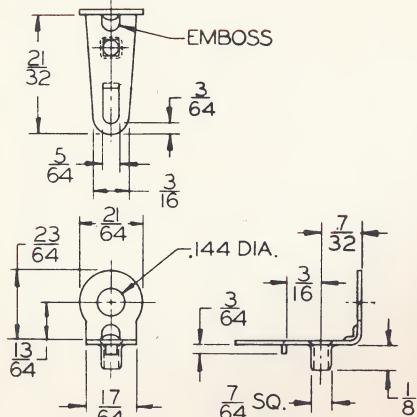
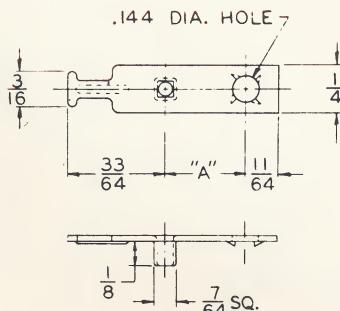
## .025 STEEL

	"A"	"B"
5024-1	$\frac{27}{64}$	.144
5024-2	$\frac{33}{64}$	.144
5024-3	$\frac{41}{64}$	.144
5024-7	$\frac{27}{64}$	.169

## .025 STEEL

	"A"
2091	.144 DIA.
387	.023 BRASS .199 DIA.

## .144 DIA. HOLE

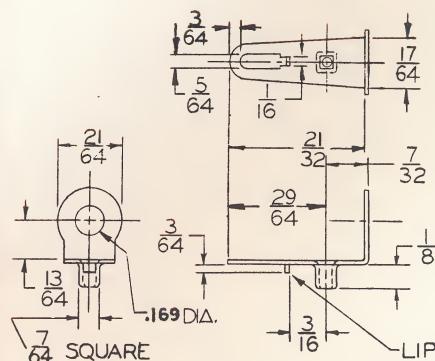


## .025 STEEL

	"A"
5023-19	$\frac{27}{64}$
5023-20	$\frac{33}{64}$
5023-21	$\frac{41}{64}$

207

.020 BRASS



208

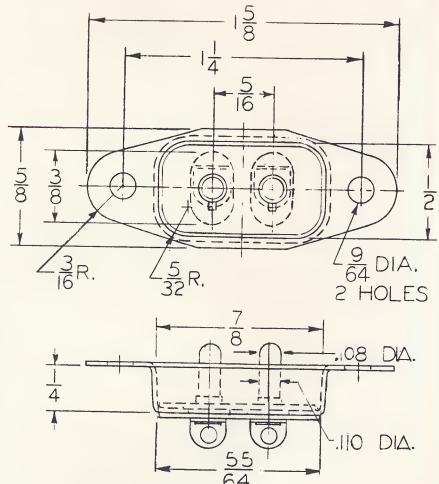
.020 BRASS

FULL SCALE ISSUE 10

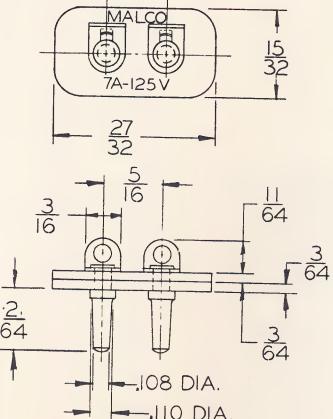
LT 30

NOTE: All parts supplied cadmium plated unless otherwise specified on order.

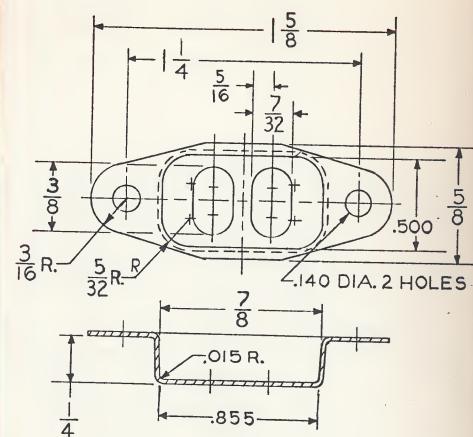
**PHONO PLUG & RECEPTACLE  
HARDWARE**



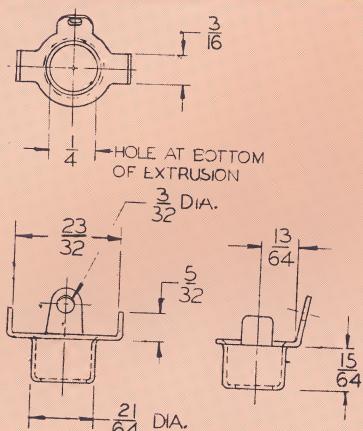
223  
U.L. APPROVED



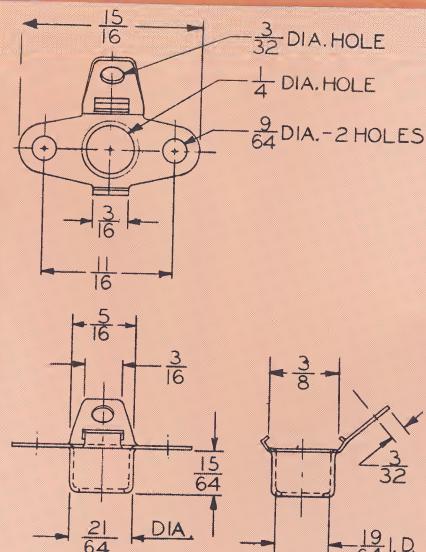
1859



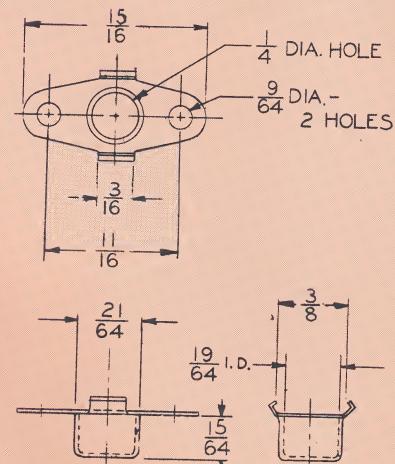
912 .022 BRASS



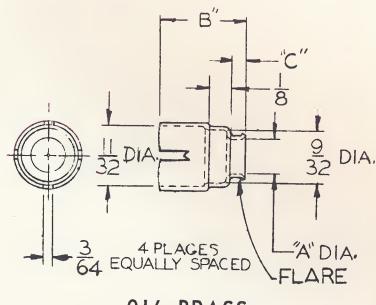
427 .016 BRASS  
2332 .016 STEEL



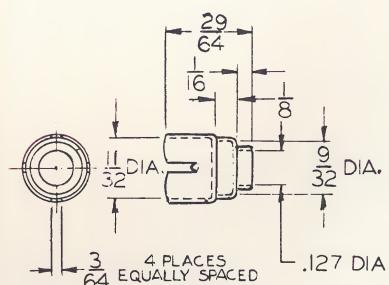
428 .016 BRASS  
2333 .016 STEEL



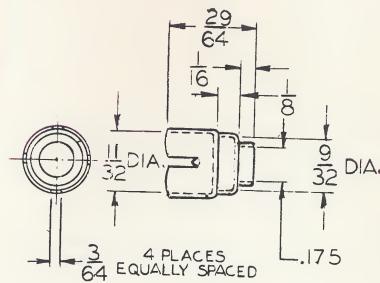
2334 .016 STEEL



.016 BRASS  
"A" .127 2 1/64 1/16 .016 BRASS  
576 .145 1/16 3/64 .016 BRASS  
530 .177 2 1/64 1/16 .016 BRASS  
2205 .127 2 1/64 1/16 .016 STEEL  
2207 .145 1/16 3/64 .016 STEEL  
2206 .177 2 1/64 1/16 .016 STEEL



984 .016 BRASS

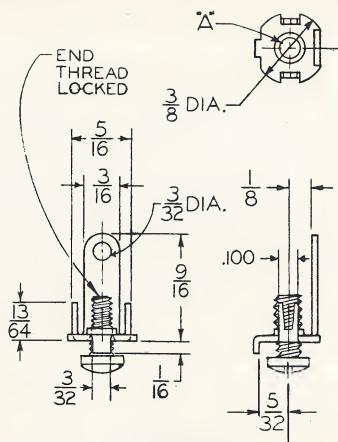


646 .016 BRASS

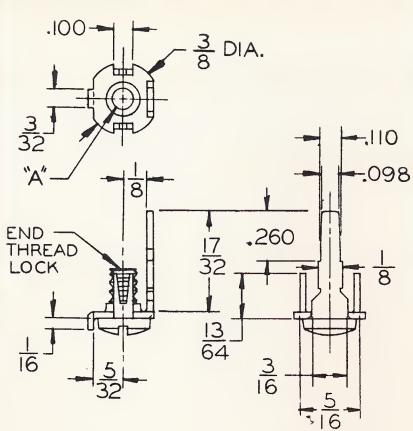
**FULL SCALE ISSUE 10**

NOTE: All parts supplied cadmium plated unless otherwise specified on order.

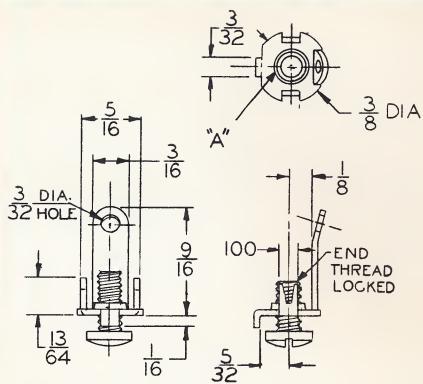
**SCREW - TERMINALS  
BINDING POSTS**



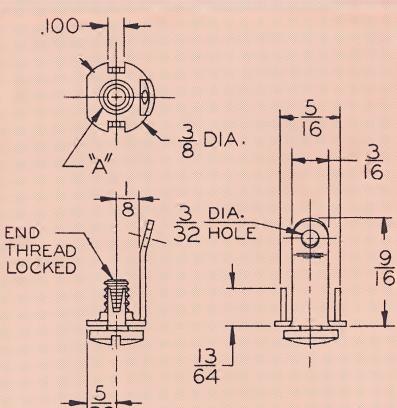
.032 BRASS  
"A"  
1008 6-32 x 3/8 SCREW  
.931 .108 DIA. HOLE



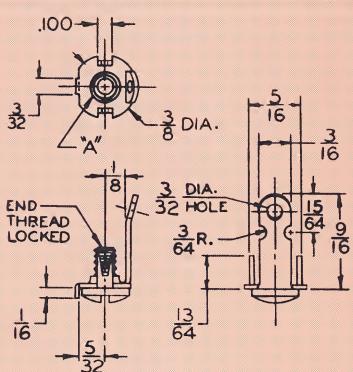
.026 BRASS  
"A"  
1601 6-32 x 1/4 SCREW  
1600 .108 DIA. HOLE



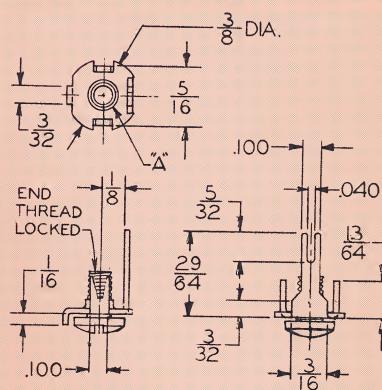
.032 BRASS  
"A"  
105 .108 DIA. HOLE  
108 6-32 x 1/4 SCREW  
118 6-32 x 3/8 SCREW  
119 6-32 TAPPED HOLE  
(Less Screw)



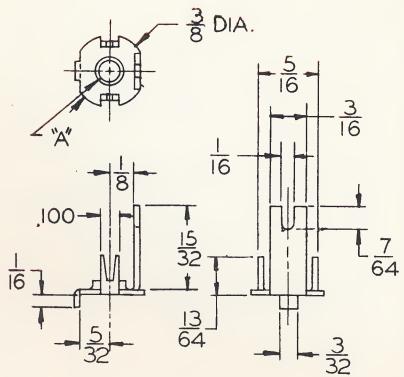
.032 BRASS  
"A"  
438 6-32 x 3/8 SCREW  
435 .108 DIA. HOLE  
2190 6-32 TAPPED HOLE  
(Less Screw)



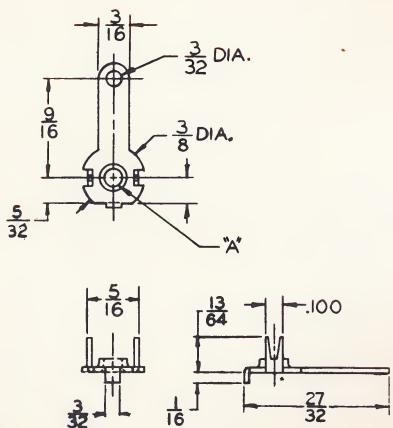
.032 BRASS  
"A"  
147 .108 DIA. HOLE  
148 6-32 x 1/4 SCREW  
149 6-32 x 3/8 SCREW



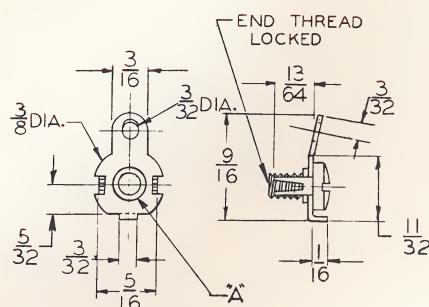
.032 BRASS  
"A"  
948 .108 DIA. HOLE  
949 6-32 TAPPED HOLE  
(LESS SCREW)  
950 6-32 x 1/4 SCREW



.032 BRASS  
"A"  
2151 6-32 x 3/8 SCREW  
2050 6-32 x 1/4 SCREW



.032 BRASS  
"A"  
357 .108 DIA. HOLE  
2111 6-32 TAPPED HOLE



.032 BRASS  
"A"  
1123 6-32 x 1/4 SCREW  
1154 108 DIA. HOLE  
2403 6-32 x 3/8 SCREW

**FULL SCALE ISSUE 10**

**LT 32** NOTE: All parts supplied cadmium plated unless otherwise specified on order.



# ENGINEERING SERVICES

## AND HIGH PRODUCTION FACILITIES

### Engineering...

Malco Manufacturing Company maintains special engineering service in connection with printed circuit hardware, automatic assembly for all types of printed circuit applications . . . also soldering lugs, terminals and small stampings. This service is available on request. Give details as to application and/or special requirements.

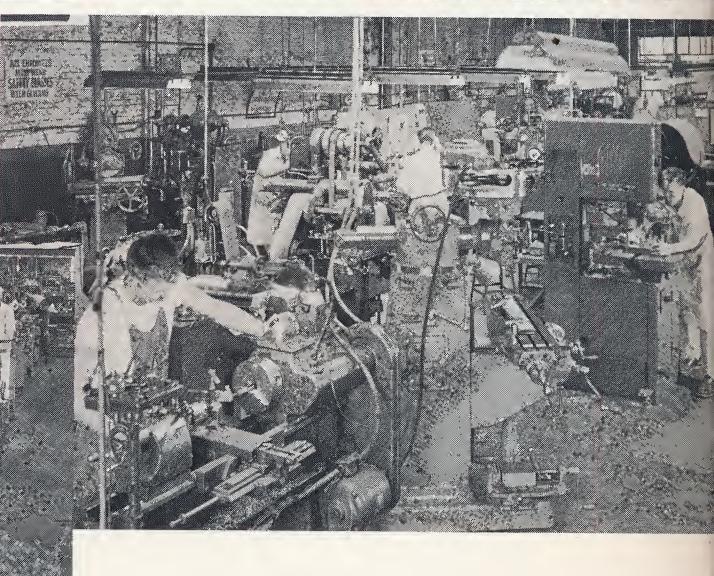
A group of Malco engineers designing terminals and dies.



Partial view of Malco's production facilities for stamping out terminals on high-speed punch presses.



Portions of Malco's extensively equipped tool room where production dies are made.



ISSUE No. 10



PRINTED IN U.S.A.

**MALCO MANUFACTURING COMPANY**

4025 West Lake Street • Chicago, Illinois 60624

Telephone: Area Code 312, VAn Buren 6-9300

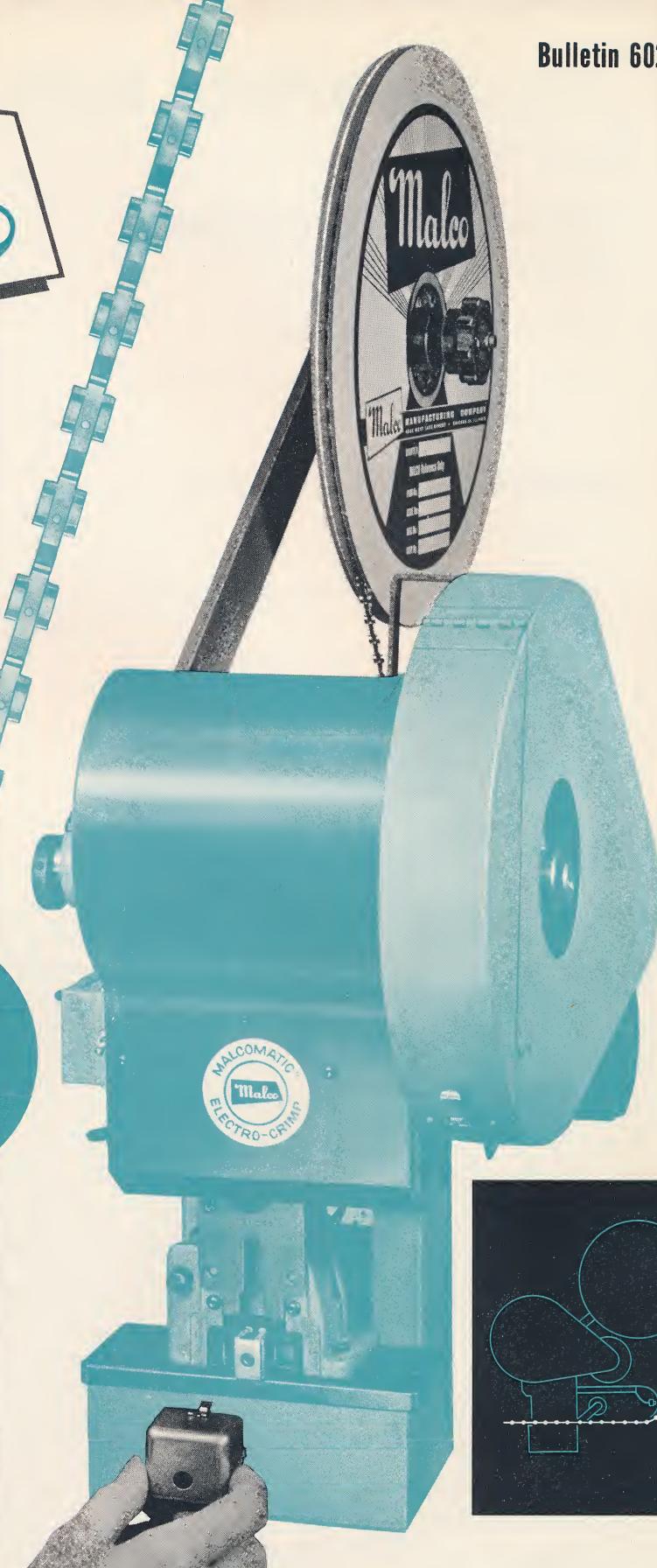
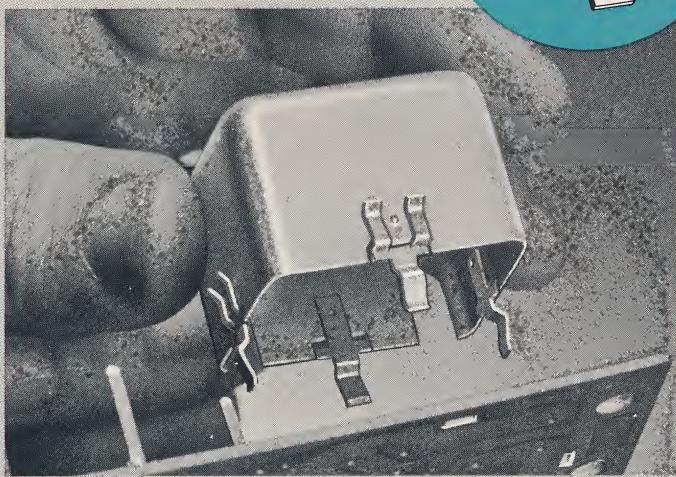
Malco Products Are Covered by One or More of the Following U.S. and Corresponding Foreign Patents and Other Patent Applications Pending

2,674,724	2,811,702	2,814,024	2,814,802	2,871,551	2,877,441	2,914,745	2,983,898	3,067,902	3,072,880	3,070,772
2,995,617	3,002,654	3,002,669	3,004,581	3,030,603	3,044,040	3,060,402	3,063,139	3,077,027	3,071,844	3,086,074

malco

# spring clips

FOR ATTACHING  
SHIELDING CANS  
TO PRINTED  
CIRCUIT BOARDS  
EASILY, QUICKLY  
AND  
ECONOMICALLY



Malco

MANUFACTURING COMPANY, INC.

SOLDER LUGS • PRINTED CIRCUIT HARDWARE • CONNECTORS • WRAP-A-WIRE TERMINALS

4025 WEST LAKE STREET, CHICAGO, ILLINOIS 60624 • VAn Buren 6-9300

**Malco**

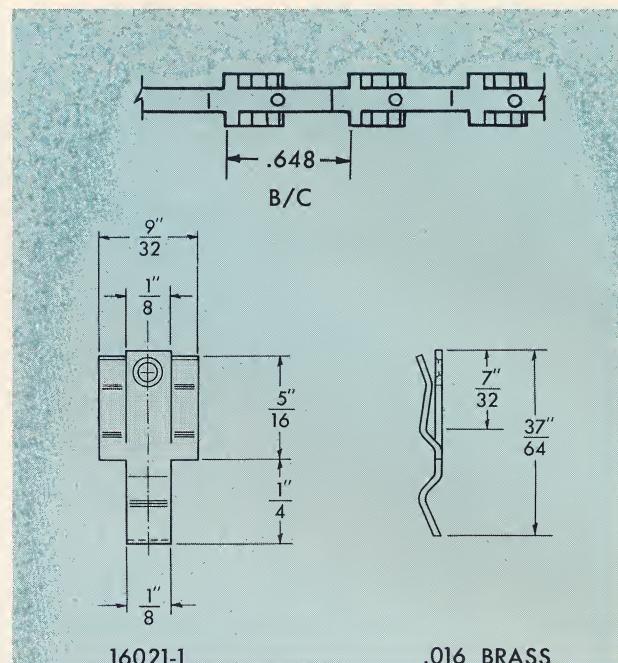
# SPRING CLIPS FOR SHIELDING CANS

## FURNISHED IN CONVENIENT CHAIN FORM

- Eliminate handling of loose clips.
- Furnished on reels for Malcomatic Machine application.

## MADE OF SPRING BRASS

- .016-in. pre-tinned brass.
- High tensile strength resists breakage and deformation.
- Excellent spring qualities.
- Assures easy removal of cans after soldering of clips into printed circuit board. Cans can be removed and re-inserted into clips without loss of configuration or retention.



16021-1

.016 BRASS

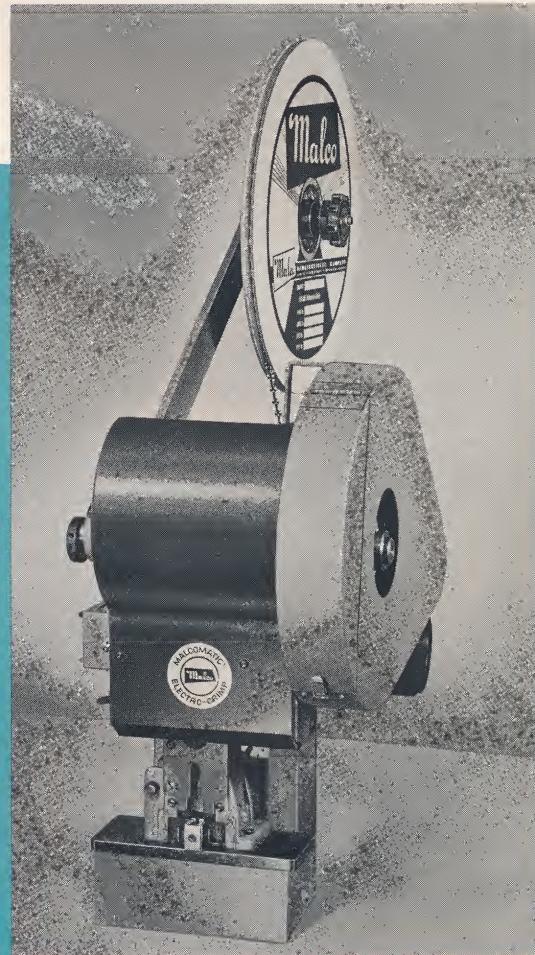
## RAPIDLY APPLIED TO CANS WITH MALCOMATIC® ATTACHING MACHINE

- Simple to operate, does not require skilled labor—saves assembly time and cuts production costs.
- Attaches 4 clips per can at rates up to 500 cans per hour.
- Feeds, cuts off and dimples in one operation.
- Fastens clip to can by dimpling. This eliminates the need for sharp barbs and affords easy removal of the cans.

### SPECIFICATIONS

WEIGHT . . . . .	125 LBS.
HEIGHT . . . . .	22 INCHES
WIDTH . . . . .	14 INCHES
DEPTH . . . . .	19 INCHES

Power Required—115V., 12 Amp., 60 Cycle. Suitable for Bench Mounting.



Malco Products Are Covered by One or More of the Following U.S. and Corresponding Foreign Patents and Other Patent Applications Pending

2,674,724	2,811,702	2,814,024	2,814,802	2,871,551	2,877,441	2,914,745	2,983,898	3,067,902	3,072,880	3,070,772
2,995,617	3,002,654	3,002,669	3,004,581	3,030,603	3,044,040	3,060,402	3,063,139	3,077,027	3,071,844	3,086,074

FOR QUICK CONNECT/  
DISCONNECT APPLICATIONS



**malco**®

**TABON® TERMINALS  
AND INSULATING SLEEVES**

Terminals in chain style . . . assembled  
rapidly with Malcomatic® Electro-Crimp Machine

**Malco**

**MANUFACTURING COMPANY**

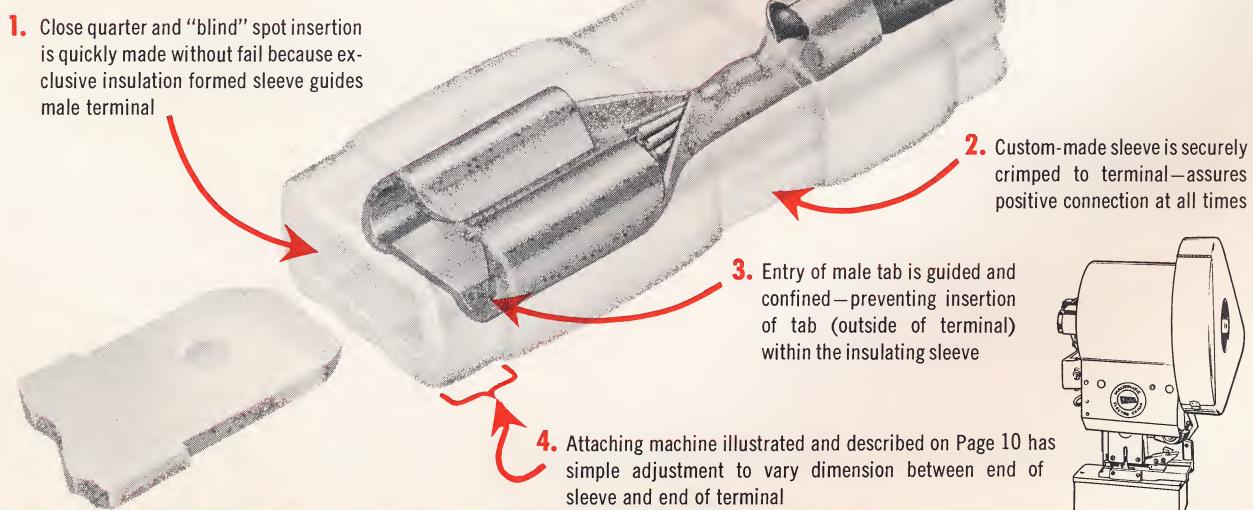
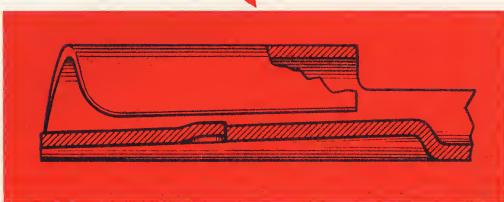
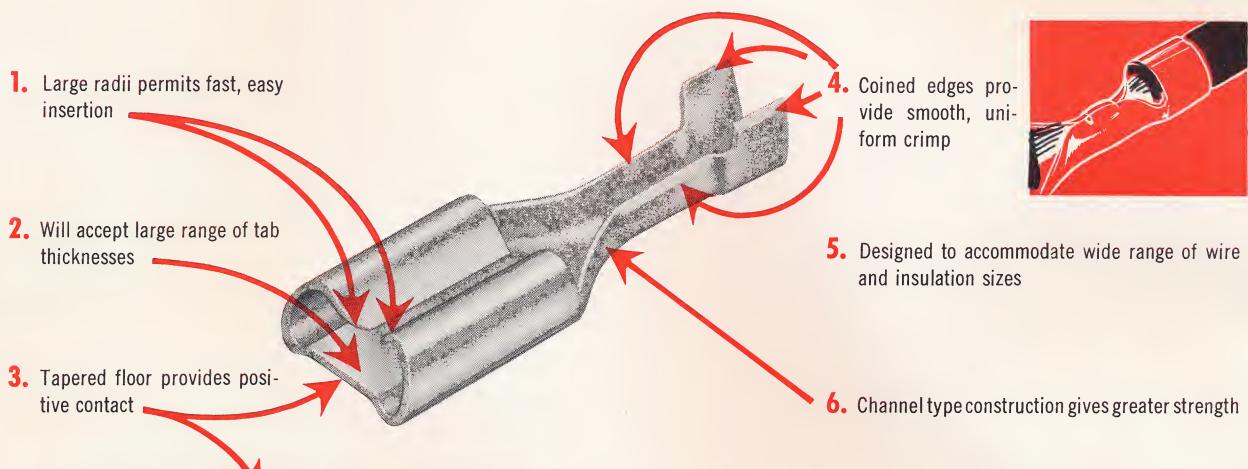
SOLDER LUGS • PRINTED CIRCUIT HARDWARE • CONNECTORS • WRAP-A-WIRE TERMINALS

4025 WEST LAKE STREET, CHICAGO, ILLINOIS 60624—VAn Buren 6-9300

**Malco**

# TABON

- Exclusive vertical and horizontal spring arm action
- Vibration-proof
- Constant, electrical contact over full length of mating areas
- Self-wiping, self-cleaning design
- Quality controlled to meet exacting specifications and to provide consistent insertion and extraction forces



## TABLE OF CONTENTS

## INDEX

TERMINAL PART NUMBERS	PAGE	TERMINAL PART NUMBERS	PAGE
51010-1.....	TA-7	53130-3.....	TA-9
51010-2.....	TA-7	53130-4.....	TA-9
51020-1.....	TA-7	53140-1.....	TA-9
51020-2.....	TA-7	53140-2.....	TA-9
51100-1.....	TA-7	53140-3.....	TA-9
51100-2.....	TA-7	53140-4.....	TA-9
51105-1.....	TA-8	53125-1.....	TA-9
51105-2.....	TA-8	53125-2.....	TA-9
51110-1.....	TA-7	53125-3.....	TA-9
51110-2.....	TA-7	53125-4.....	TA-9
51110-3.....	TA-7	53135-1.....	TA-9
51115-1.....	TA-8	53135-2.....	TA-9
51115-2.....	TA-8	53135-3.....	TA-9
51120-1.....	TA-7	53135-4.....	TA-9
51120-2.....	TA-7	53145-1.....	TA-9
51125-1.....	TA-8	53145-2.....	TA-9
51125-2.....	TA-8	53145-3.....	TA-9
52010-1.....	TA-4	53145-4.....	TA-9
52010-2.....	TA-4	54010-1.....	TA-5
52020-1.....	TA-4	54010-2.....	TA-5
52020-2.....	TA-4	54020-1.....	TA-5
52100-1.....	TA-4	54020-2.....	TA-5
52100-2.....	TA-4	54100-1.....	TA-6
52105-1.....	TA-5	54100-2.....	TA-6
52105-2.....	TA-5	54105-1.....	TA-6
52110-1.....	TA-4	54105-2.....	TA-6
52110-2.....	TA-4	54110-1.....	TA-6
52115-1.....	TA-5	54110-2.....	TA-6
52115-2.....	TA-5	54115-1.....	TA-6
52120-1.....	TA-4	54115-2.....	TA-6
52120-2.....	TA-4	54120-1.....	TA-6
52125-1.....	TA-5	54120-2.....	TA-6
52125-2.....	TA-5	54125-1.....	TA-6
53120-1.....	TA-9	54125-2.....	TA-6
53120-2.....	TA-9		
53120-3.....	TA-9	INSULATING SLEEVE NUMBERS	PAGE
53120-4.....	TA-9	29068-10.....	TA-8
53130-1.....	TA-9	29071-10.....	TA-8
53130-2.....	TA-9	29106-10.....	TA-8

"Chain Parts may be purchased loose by adding the letter "A" after the first two digits."



**INSULATION PIERCE**

205 Series                          Page TA-4  
187 Series                          Page TA-5  
110 Series                          Page TA-7



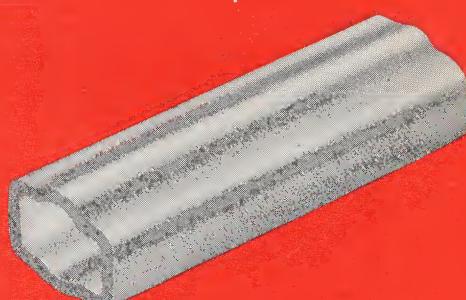
**WIRE CRIMP WITH  
INSULATION SUPPORT**

250 Series                          Page TA-9  
205 Series                          Page TA-4  
187 Series                          Page TA-6  
110 Series                          Page TA-7



**WIRE CRIMP**

250 Series                          Page TA-9  
205 Series                          Page TA-5  
187 Series                          Page TA-6  
110 Series                          Page TA-8



**INSULATING SLEEVE**

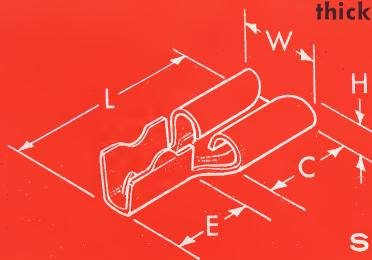
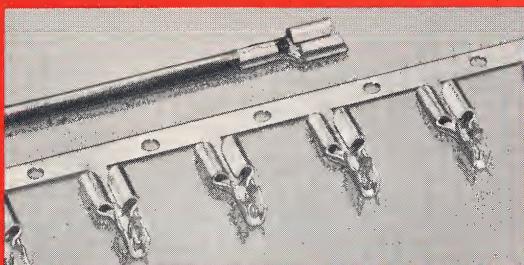
For 250, 205, 187  
and 110 Series                          Page TA-8

# TABON TERMINALS

## INSULATION PIERCE

## 205 SERIES

(Fits Tab .016 to .030  
thick x .205 wide)



SCALE 2 to 1

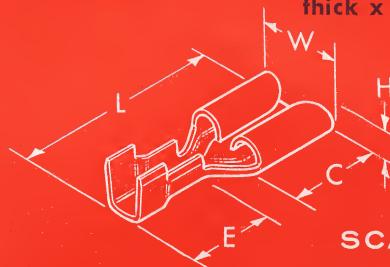
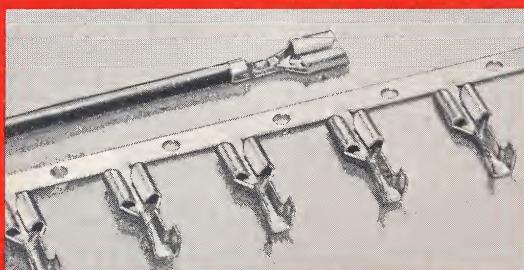
Part Number	Insulation O.D. Range	Stock Thicks.	Material	Nominal					Remarks
				W	C	E	L	H	
52010-1	.060-.080	.0126	BRASS	.245	.275	.220	.610	.100	
52010-2	.060-.080	.0126	PRE-TINNED BRASS	.245	.275	.220	.610	.100	
52020-1	.080-.100	.0126	BRASS	.245	.275	.220	.610	.100	
52020-2	.080-.100	.0126	PRE-TINNED BRASS	.245	.275	.220	.610	.100	

# TABON TERMINALS

## WIRE CRIMP WITH INSULATION SUPPORT

## 205 SERIES

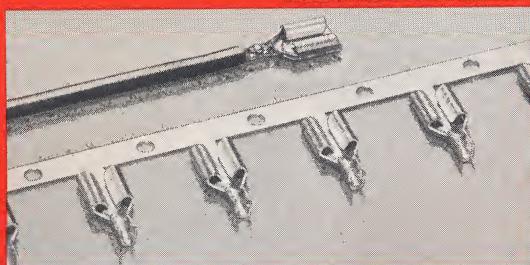
(Fits Tab .016 to .030  
thick x .205 wide)



SCALE 2 to 1

Part Number	Wire Range	Insulation O.D. Range	Stock Thicks.	Material	Nominal					Remarks
					W	C	E	L	H	
52100-1	24-27	.040-.059	.0126	BRASS	.245	.275	.281	.671	.100	<input type="checkbox"/> NO DIMPLE
52100-2	24-27	.040-.059	.0126	PRE-TINNED BRASS	.245	.275	.281	.671	.100	
52110-1	20-24	.060-.099	.0126	BRASS	.245	.275	.281	.671	.100	
52110-2	20-24	.060-.099	.0126	PRE-TINNED BRASS	.245	.275	.281	.671	.100	
52120-1	16-20	.100-.130	.0126	BRASS	.245	.275	.281	.671	.100	
52120-2	16-20	.100-.130	.0126	PRE-TINNED BRASS	.245	.275	.281	.671	.100	

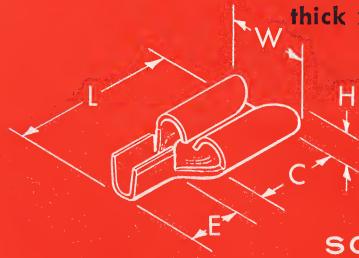
# TABON TERMINALS



## WIRE CRIMP

## 205 SERIES

(Fits Tab .016 to .030  
thick x .205 wide)



SCALE 2 to 1

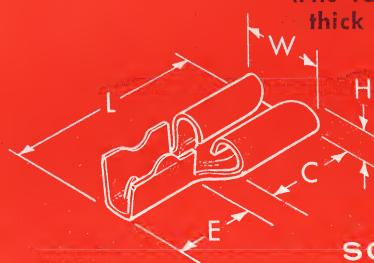
Part Number	Wire Range	Stock Thicks.	Material	Nominal					Remarks
				W	C	E	L	H	
52105-1	24-27	.0126	BRASS	.245	.275	.140	.530	.100	
52105-2	24-27	.0126	PRE-TINNED BRASS	.245	.275	.140	.530	.100	<input type="checkbox"/> NO DIMPLE
52115-1	20-24	.0126	BRASS	.245	.275	.140	.530	.100	
52115-2	20-24	.0126	PRE-TINNED BRASS	.245	.275	.140	.530	.100	
52125-1	16-20	.0126	BRASS	.245	.275	.140	.530	.100	
52125-2	16-20	.0126	PRE-TINNED BRASS	.245	.275	.140	.530	.100	

# TABON TERMINALS

## INSULATION PIERCE

## 187 SERIES

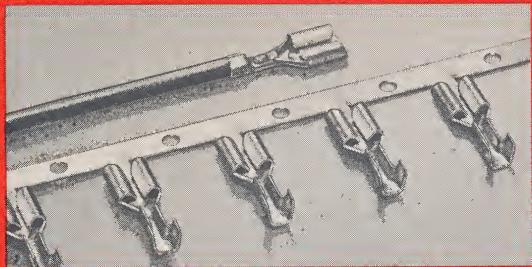
(Fits Tab .015 to .025  
thick x .187 wide)



SCALE 2 to 1

Part Number	Insulation O.D. Range	Stock Thicks.	Material	Nominal					Remarks
				W	C	E	L	H	
54010-1	.060-.080	.0126	BRASS	.225	.275	.220	.610	.093	
54010-2	.060-.080	.0126	PRE-TINNED BRASS	.225	.275	.220	.610	.093	
54020-1	.080-.100	.0126	BRASS	.225	.275	.220	.610	.093	
54020-2	.080-.100	.0126	PRE-TINNED BRASS	.225	.275	.220	.610	.093	

# TABON TERMINALS



## WIRE CRIMP WITH INSULATION SUPPORT

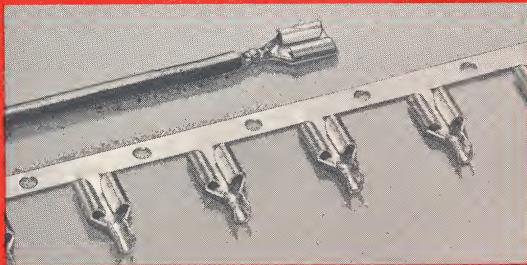
## 187 SERIES

(Fits Tab .015 to .025 thick x .187 wide)



Part Number	Wire Range	Insulation O.D. Range	Stock Thicks.	Material	Nominal					Remarks
					W	C	E	L	H	
54100-1	24-27	.040-.059	.0126	BRASS	.225	.275	.281	.671	.093	<input type="checkbox"/> NO DIMPLE
54100-2	24-27	.040-.059	.0126	PRE-TINNED BRASS	.225	.275	.281	.671	.093	<input type="checkbox"/>
54110-1	20-24	.060-.099	.0126	BRASS	.225	.275	.281	.671	.093	
54110-2	20-24	.060-.099	.0126	PRE-TINNED BRASS	.225	.275	.281	.671	.093	
54120-1	16-20	.100-.130	.0126	BRASS	.225	.275	.281	.671	.093	
54120-2	16-20	.100-.130	.0126	PRE-TINNED BRASS	.225	.275	.281	.671	.093	

# TABON TERMINALS



## WIRE CRIMP

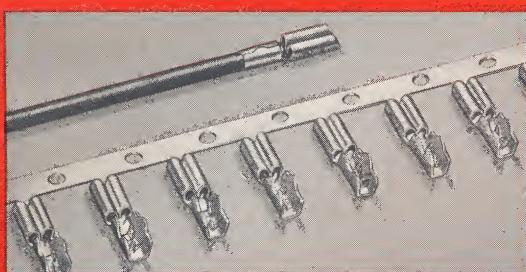
## 187 SERIES

(Fits Tab .015 to .025 thick x .187 wide)



Part Number	Wire Range	Stock Thicks.	Material	Nominal					Remarks
				W	C	E	L	H	
54105-1	24-27	.0126	BRASS	.225	.275	.140	.530	.093	<input type="checkbox"/> NO DIMPLE
54105-2	24-27	.0126	PRE-TINNED BRASS	.225	.275	.140	.530	.093	<input type="checkbox"/>
54115-1	20-24	.0126	BRASS	.225	.275	.140	.530	.093	
54115-2	20-24	.0126	PRE-TINNED BRASS	.225	.275	.140	.530	.093	
54125-1	16-20	.0126	BRASS	.225	.275	.140	.530	.093	
54125-2	16-20	.0126	PRE-TINNED BRASS	.225	.275	.140	.530	.093	

# TABON TERMINALS INSULATION PIERCE



## IIO SERIES

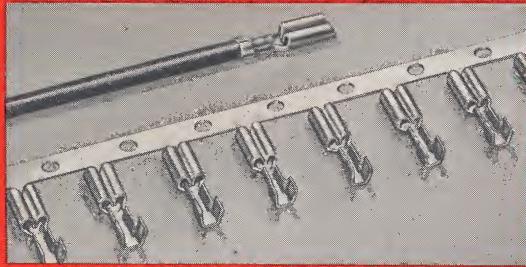
(Fits Tab .016 to .020 thick  
x .110 to .130 wide)



SCALE 2 to 1

Part Number	Insulation O.D. Range	Stock Thcks.	Material	Nominal					Remarks
				W	C	E	L	H	
51010-1	.060-.080	.010	BRASS	.152	.250	.220	.540	.078	
51010-2	.060-.080	.010	PRE-TINNED BRASS	.152	.250	.220	.540	.078	
51020-1	.080-.100	.010	BRASS	.152	.250	.220	.540	.078	
51020-2	.080-.100	.010	PRE-TINNED BRASS	.152	.250	.220	.540	.078	

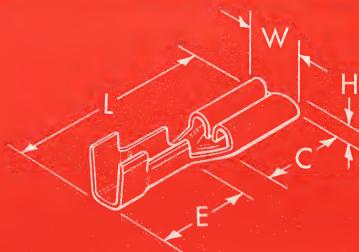
# TABON TERMINALS



## WIRE CRIMP WITH INSULATION SUPPORT

## IIO SERIES

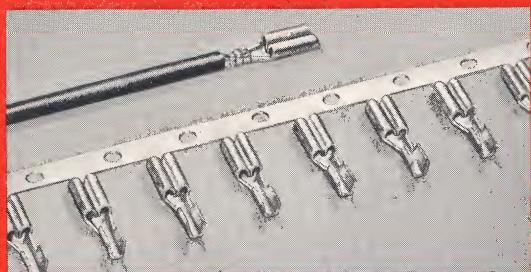
(Fits Tab .016 to .020 thick  
x .110 to .130 wide)



SCALE 2 to 1

Part Number	Wire Range	Insulation O.D. Range	Stock Thcks.	Material	Nominal					Remarks
					W	C	E	L	H	
51100-1	24-27	.040-.059	.010	BRASS	.152	.250	.281	.601	.078	
51100-2	24-27	.040-.059	.010	PRE-TINNED BRASS	.152	.250	.281	.601	.078	
51110-1	20-24	.060-.099	.010	BRASS	.152	.250	.281	.601	.078	
51110-2	20-24	.060-.099	.010	PRE-TINNED BRASS	.152	.250	.281	.601	.078	
51110-3	20-24	.060-.099	.010	PRE-TINNED BRASS	.152	.250	.281	.601	.078	Fits Tab .022 to .032 thick
51120-1	16-20	.100-.130	.010	BRASS	.152	.250	.281	.601	.078	
51120-2	16-20	.100-.130	.010	PRE-TINNED BRASS	.152	.250	.281	.601	.078	

# TABON TERMINALS



## WIRE CRIMP

## IIO SERIES

(Fits Tab .016 to .030 thick  
x .110 to .130 wide)



SCALE 2 to 1

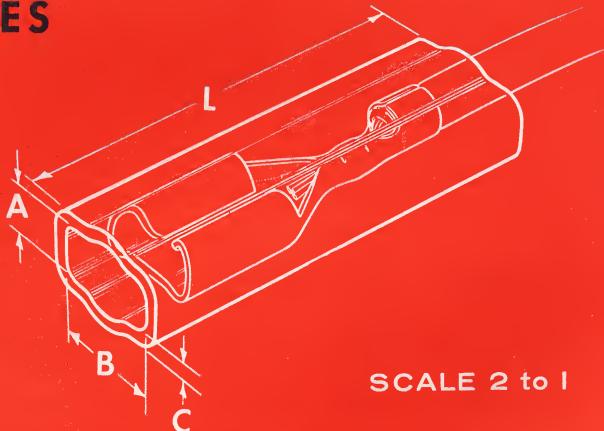
Part Number	Wire Range	Stock Thicks.	Material	Nominal					Remarks
				W	C	E	L	H	
*51105-1	24-27	.010	BRASS	.152	.250	.160	.480	.078	
51105-2	24-27	.010	PRE-TINNED BRASS	.152	.250	.160	.480	.078	
51115-1	20-24	.010	BRASS	.152	.250	.160	.480	.078	
51115-2	20-24	.010	PRE-TINNED BRASS	.152	.250	.160	.480	.078	
51125-1	16-20	.010	BRASS	.152	.250	.160	.480	.078	
51125-2	16-20	.010	PRE-TINNED BRASS	.152	.250	.160	.480	.078	

# TABON INSULATING SLEEVES

MADE OF SUPER HIGH IMPACT  
POLYVINYL CHLORIDE

Part No.	To Be Used With	A	B	C	L	Color
29068-10	205 & 187 Series	1/8	1/4	1/32	15/16	Natural*
29071-10	110 Series	3/32	5/32	1/32	7/8	Natural*
29106-10	250 Series	15/64	21/64	1/32	1	Natural*

\*Other colors available on special order

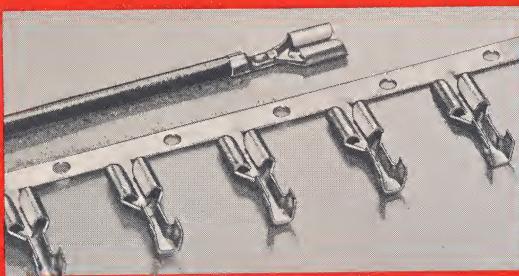


SCALE 2 to 1



MALCO PIN RECEPTACLES ARE ALSO  
AVAILABLE WITH INSULATING SLEEVES

# TABON TERMINALS



## WIRE CRIMP WITH INSULATION SUPPORT

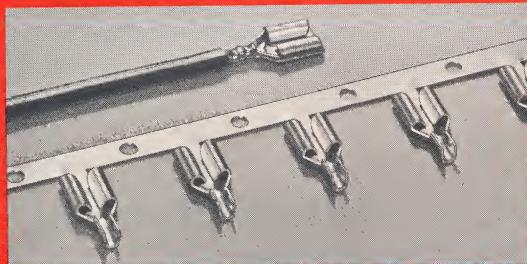
## 250 SERIES

(Fits Tab .032 thick x .250 wide)



Part Number	Wire Range	Insulation O.D. Range	Stock Thicks.	Material	Nominal					Remarks
					W	C	E	L	H	
53120-1	16-20	.100-.130	.016	Brass	.300	.305	.320	.765	.140	
53120-2	16-20	.100-.130	.016	Pre-Tinned Brass	.300	.305	.320	.765	.140	
53120-3	16-20	.100-.130	.016	Phos. Bronze	.300	.305	.320	.765	.140	
53120-4	16-20	.100-.130	.016	Pre-Tinned Phos. Bronze	.300	.305	.320	.765	.140	
53130-1	14-16	.130-.175	.016	Brass	.300	.305	.320	.765	.140	
53130-2	14-16	.130-.175	.016	Pre-Tinned Brass	.300	.305	.320	.765	.140	
53130-3	14-16	.130-.175	.016	Phos. Bronze	.300	.305	.320	.765	.140	
53130-4	14-16	.130-.175	.016	Pre-Tinned Phos. Bronze	.300	.305	.320	.765	.140	
53140-1	12-16	.130-.200	.016	Brass	.300	.305	.320	.765	.140	
53140-2	12-16	.130-.200	.016	Pre-Tinned Brass	.300	.305	.320	.765	.140	
53140-3	12-16	.130-.200	.016	Phos. Bronze	.300	.305	.320	.765	.140	
53140-4	12-16	.130-.200	.016	Pre-Tinned Phos. Bronze	.300	.305	.320	.765	.140	

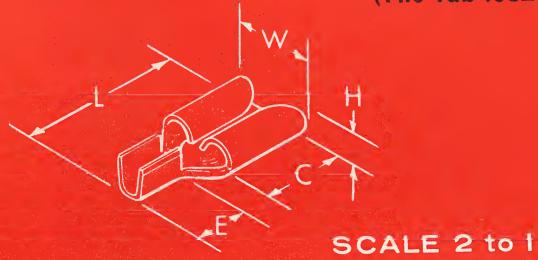
# TABON TERMINALS



## WIRE CRIMP

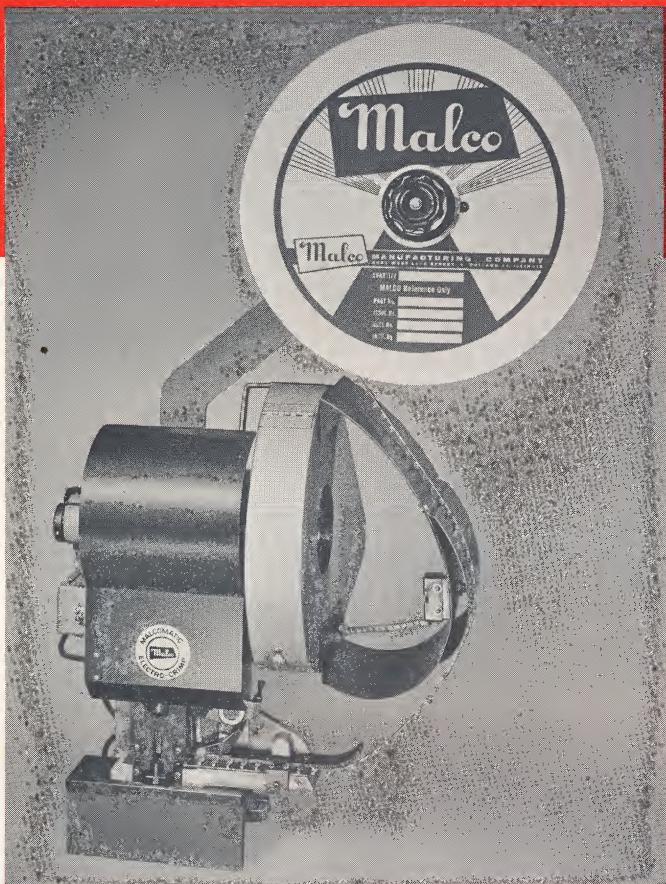
## 250 SERIES

(Fits Tab .032 thick x .250 wide)



Part Number	Wire Range	Stock Thicks.	Material	Nominal					Remarks
				W	C	E	L	H	
53125-1	16-20	.016	Brass	.300	.305	.180	.594	.140	
53125-2	16-20	.016	Pre-Tinned Brass	.300	.305	.180	.594	.140	
53125-3	16-20	.016	Phos. Bronze	.300	.305	.180	.594	.140	
53125-4	16-20	.016	Pre-Tinned Phos. Bronze	.300	.305	.180	.594	.140	
53135-1	14-16	.016	Brass	.300	.305	.180	.594	.140	
53135-2	14-16	.016	Pre-Tinned Brass	.300	.305	.180	.594	.140	
53135-3	14-16	.016	Phos. Bronze	.300	.305	.180	.594	.140	
53135-4	14-16	.016	Pre-Tinned Phos. Bronze	.300	.305	.180	.594	.140	
53145-1	12-16	.016	Brass	.300	.305	.180	.594	.140	
53145-2	12-16	.016	Pre-Tinned Brass	.300	.305	.180	.594	.140	
53145-3	12-16	.016	Phos. Bronze	.300	.305	.180	.594	.140	
53145-4	12-16	.016	Pre-Tinned Phos. Bronze	.300	.305	.180	.594	.140	

# MALCOMATIC® ELECTRO-CRIMP MACHINES



Malcomatic Electro-Crimp Machines are especially designed for high production requirements. They are suitable for bench mounting and especially adapted to new or existing production line setups. Skilled operators are not required.

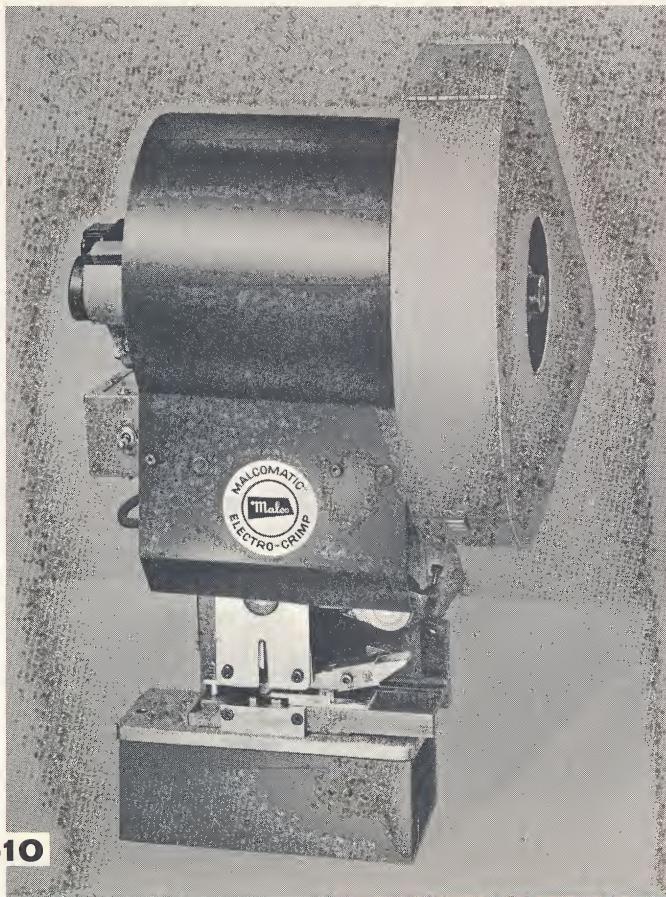
## For Crimping Malco Tabon Terminals

### Features:

- High productivity
- Simple ram adjustment for variations in wire sizes
- Quick jaw and anvil changeovers
- Spare parts from stock

### Specifications:

- Weight: 125 lbs.
- Height: 22 in.
- Width: 14 in.
- Depth: 19 in.
- Power: 115 v., 12 amp., 60 cycle



## For Crimping Insulating Sleeves to Malco Tabon Terminals

### Features:

- High productivity
- Simple adjustment to vary dimension between end of sleeve and end of terminal
- Quick jaw and anvil changeovers
- Spare parts from stock

### Specifications:

- Weight: 150 lbs.
- Height: 22 in.
- Width: 14 in.
- Depth: 26 in.
- Power: 115 v., 12 amp., 60 cycle

**Malco****ENGINEERING SERVICES****AND HIGH PRODUCTION  
FACILITIES****Engineering...**

Malco Manufacturing Company maintains special engineering service in connection with printed circuit hardware, automatic assembly for all types of printed circuit applications . . . also soldering lugs, terminals and small stampings. This service is available on request. Give details as to application and/or special requirements.

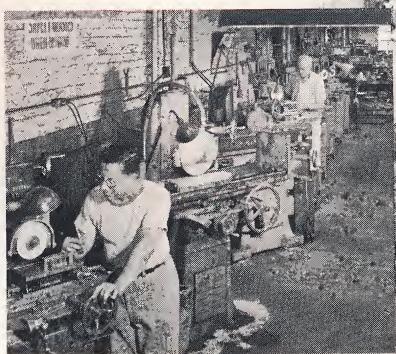
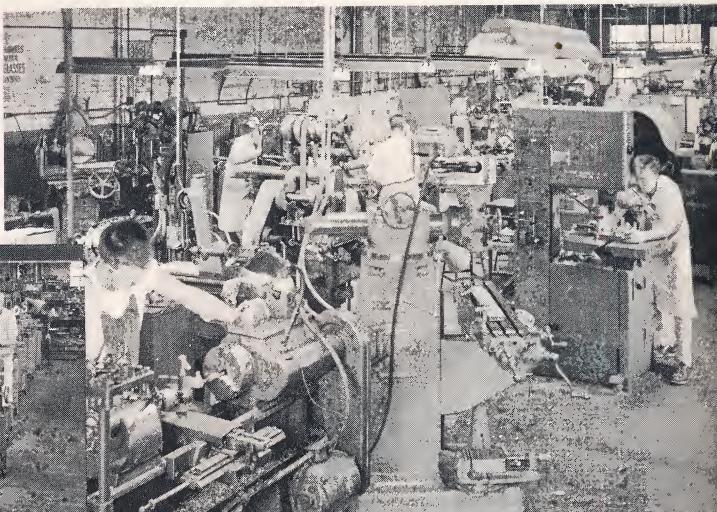
A group of Malco engineers designing terminals and dies.



Partial view of Malco's production facilities for stamping out terminals on high-speed punch presses.



Portions of Malco's extensively equipped tool room where production dies are made.





Malco®

Malco Products Are Covered by One or More of the Following U.S. and Corresponding Foreign Patents and Other Patent Applications Pending

© Malco 1963    2,674,724    2,811,702    2,814,024    2,814,802    2,871,551    2,877,441    2,914,745    2,983,898    3,067,902    3,072,880    3,070,772  
              2,995,617    3,002,654    3,002,669    3,004,581    3,030,603    3,044,040    3,060,402    3,063,139    3,077,027    3,071,844    3,086,074



MANUFACTURING COMPANY

SOLDER LUGS • PRINTED CIRCUIT HARDWARE • CONNECTORS • WRAP-A-WIRE TERMINALS

4025 WEST LAKE STREET, CHICAGO, ILLINOIS 60624—VAn Buren 6-9300



Bulletin No. 604-B

Malco

# CORD CLAMPS

For All Strain Relief  
and Anti-Fray  
Applications

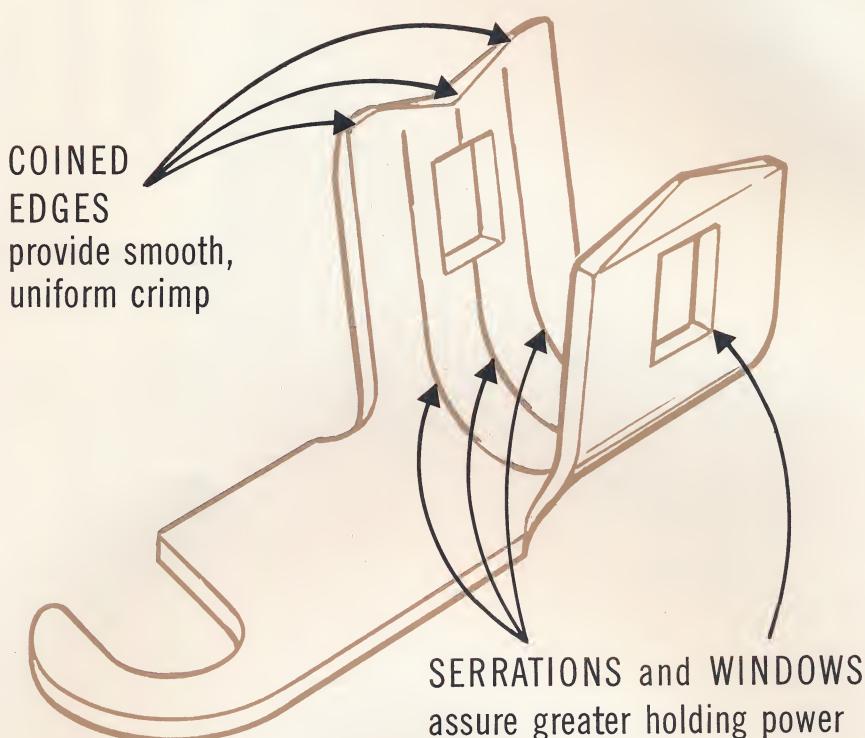
ALL MALCO CORD CLAMPS CAN BE ATTACHED WITH ONE MACHINE

**MALCO MANUFACTURING COMPANY, INC.**

4025 WEST LAKE STREET, CHICAGO, ILLINOIS 60624 • VAn Buren 6-9300

# Malco Cord Clamp Features

- Prevent cord pull damage and unraveling.
- Step up production.
- Improve quality.
- Crimp firmly to cord with uniform pressure.
- Cord clamps cover a wide variety of cord diameters.
- Available in aluminum. Other materials available on special order.
- High tensile strength resists breakage and deformation.
- Supplied in convenient chain form for automatic crimping.



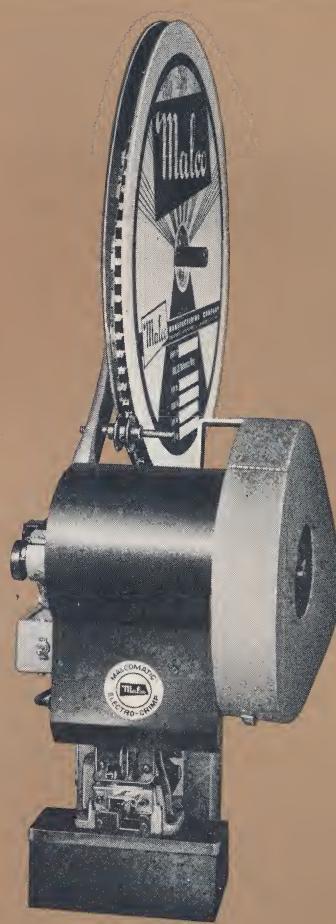
## MALCOMATIC® ELECTRO-CRIMP MACHINE

especially designed for high-production crimping of all Malco cord clamps.  
Suitable for bench mounting.

- Features**
- High productivity
  - Simple ram adjustment for cord size and pull test variations
  - Quick jaw and anvil changeovers
  - Spare parts from stock

### Specifications

Weight: 125 lbs.  
Height: 22 in.  
Width: 14 in.  
Depth: 19 in.  
Power: 115 v., 12 amp., 60 cycle



# INDEX

PART NUMBER	PAGE
21009-3.....	CC-4
21009-5.....	CC-4
21009-8.....	CC-4
21010-3.....	CC-4
21010-5.....	CC-4
21010-8.....	CC-4
21010-10.....	CC-4
21011-3.....	CC-5
21011-5.....	CC-5
21011-11.....	CC-5
21012-3.....	CC-5
21012-5.....	CC-5
21012-11.....	CC-5
21013-3.....	CC-6
21013-5.....	CC-6
21013-8.....	CC-6
21014-3.....	CC-6
21014-5.....	CC-6
21014-8.....	CC-6
21015-3.....	CC-7
21015-5.....	CC-7
21015-8.....	CC-7
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21016-8.....	CC-7
21016-10.....	CC-7
21A020-1.....	CC-7
21A020-2.....	CC-7

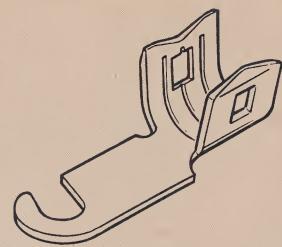
## HOW TO ORDER

Cord diameter ranges shown for parts listed in this catalog are for reference only. For your specific insulation terminations we suggest you submit a 10 ft. sample of cord in your request for quotation or with your purchase order.

**Chain Parts may be purchased loose by adding the letter "A" after the first two digits.**

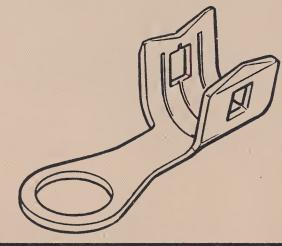
## HOOKS

Page CC-4



## RINGS

Page CC-4



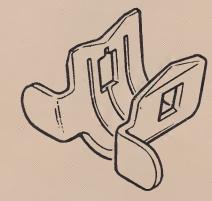
## OFFSETS

Page CC-5



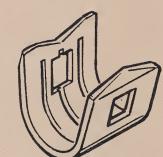
## WINGS

Page CC-5



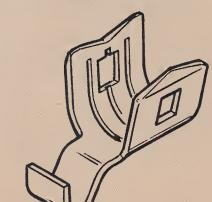
## BANDS

Page CC-6



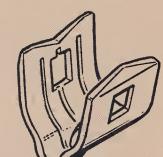
## "J's"

Page CC-6



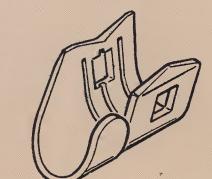
## "S" HOOKS

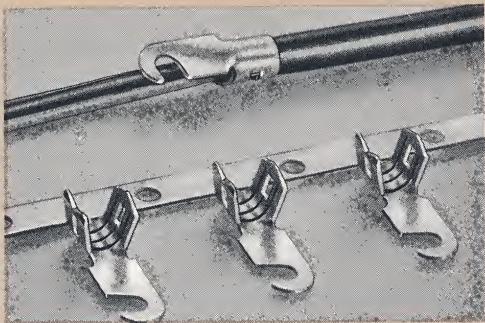
Page CC-7



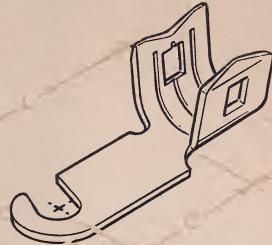
## SIDE HOOKS

Page CC-7

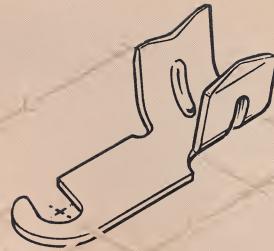




## Hooks...

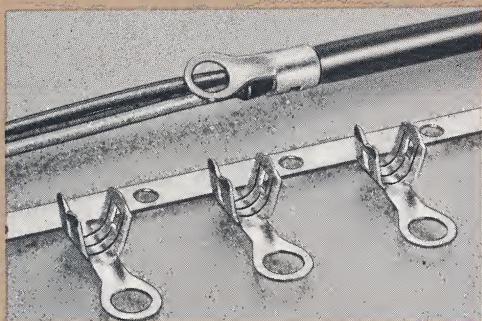


STYLE 1



STYLE 2

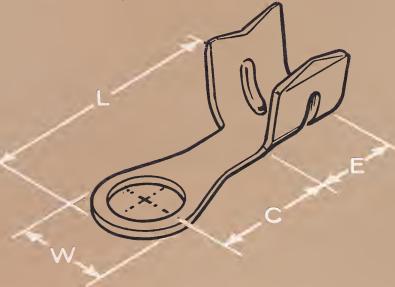
Part Number	Style	Stud Hole	Cord Dia. Range	Stock Thicks.	Material	Nominal				Remarks
						E	C	W	L	
21009-3	1	#5 (.132)	.210-.250	.025	ALUMINUM	.250	.375	.250	.765	
21009-5	1	#5 (.132)	.250-.280	.025	ALUMINUM	.250	.375	.250	.765	
21009-8	2	#5 (.132)	.165-.185	.025	ALUMINUM	.250	.375	.250	.765	{ No Serrations Or Windows



## Rings...

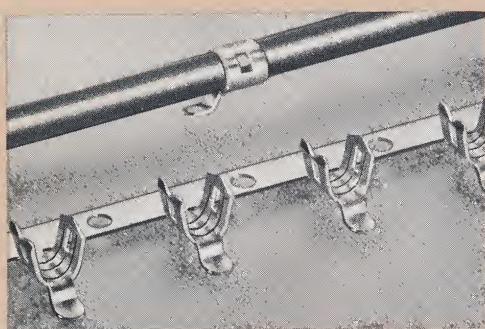


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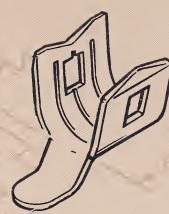


STYLE 2

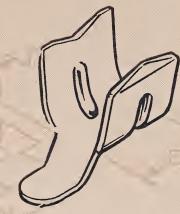
Part Number	Style	Stud Hole	Cord Dia. Range	Stock Thicks.	Material	Nominal				Remarks
						E	C	W	L	
21010-3	1	#10 (.200)	.210-.250	.025	ALUMINUM	.250	.344	.284	.736	
21010-5	1	#10 (.200)	.250-.280	.025	ALUMINUM	.250	.344	.284	.736	
21010-8	1	#6 (.146)	.250-.280	.025	ALUMINUM	.250	.344	.284	.736	
21010-10	2	#10 (.200)	.165-.185	.025	ALUMINUM	.250	.344	.284	.736	{ No Serrations Or Windows



## Offsets...

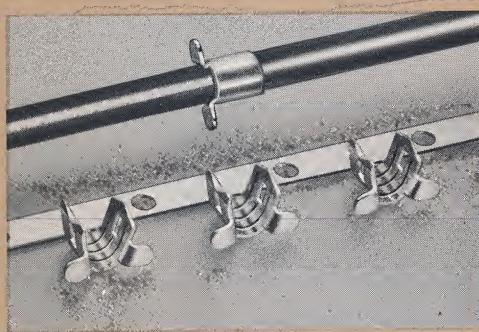


STYLE 1

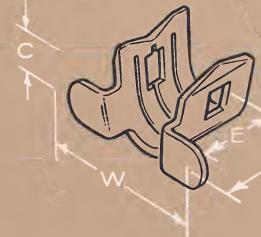


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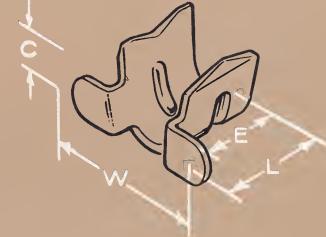
Part Number	Style	Cord Dia. Range	Stock Thcks.	Material	Nominal				Remarks
					E	C	W	L	
21011-3	1	.210-.250	.025	ALUMINUM	.250	.078	.134	.453	
21011-5	1	.250-.280	.025	ALUMINUM	.250	.078	.134	.453	
21011-11	2	.165-.185	.025	ALUMINUM	.250	.078	.134	.453	{ No Serrations Or Windows



## Wings...

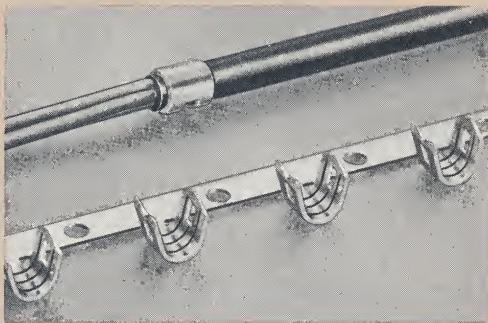


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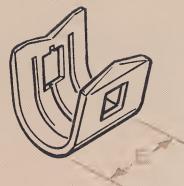


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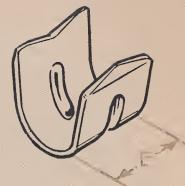
Part Number	Style	Cord Dia. Range	Stock Thcks.	Material	Nominal				Remarks
					E	C	W	L	
21012-3	1	.210-.250	.025	ALUMINUM	.250	.125	.485	.305	
21012-5	1	.250-.280	.025	ALUMINUM	.250	.125	.485	.305	
21012-11	2	.165-.185	.025	ALUMINUM	.250	.125	.440	.305	{ No Serrations Or Windows



## Bands...

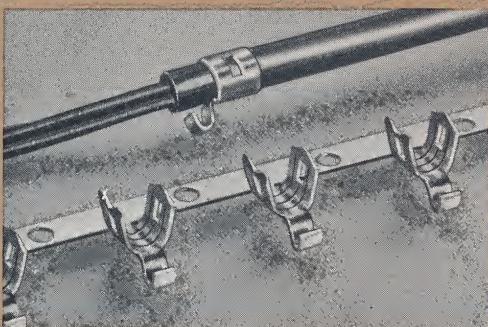


STYLE 1

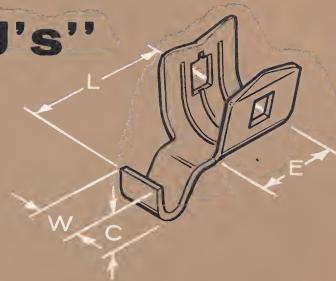


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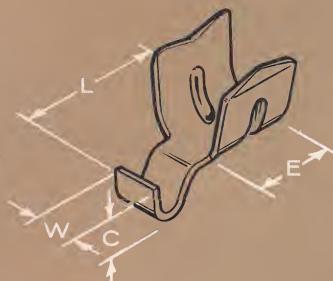
Part Number	Style	Cord Dia. Range	Stock Thicks.	Material	Nominal	Remarks
					E	
21013-3	1	.210-.250	.025	ALUMINUM	.250	
21013-5	1	.250-.280	.025	ALUMINUM	.250	
21013-8	2	.165-.185	.025	ALUMINUM	.250	No Serrations Or Windows



## "J's"



STYLE 1



STYLE 2

Part Number	Style	Cord Dia. Range	Stock Thicks.	Material	Nominal				Remarks
					E	C	W	L	
21014-3	1	.210-.250	.025	ALUMINUM	.250	.093	.125	.430	
21014-5	1	.250-.280	.025	ALUMINUM	.250	.093	.125	.430	
21014-8	2	.165-.185	.025	ALUMINUM	.250	.093	.125	.430	{ No Serrations Or Windows



## "S" Hooks...



STYLE 1



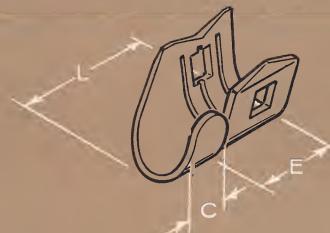
STYLE 2

WIRE FORM "S" HOOKS NOT INCLUDED

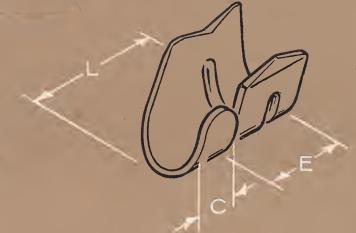
Part Number	Style	Cord Dia. Range	Stock Thicks.	Material	Nominal				Remarks
					E	C	D	R	
21015-3	1	.210-.250	.025	ALUMINUM	.250	.140	.030	.030	
21015-5	1	.250-.280	.025	ALUMINUM	.250	.140	.030	.030	
21015-8	2	.165-.185	.025	ALUMINUM	.250	.140	.030	.030	No Serrations Or Windows



## Side Hooks...

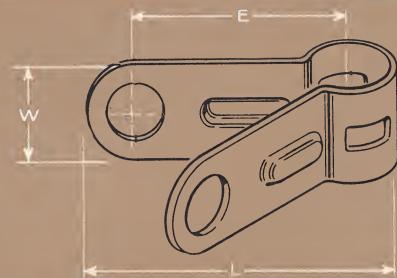


STYLE 1



STYLE 2

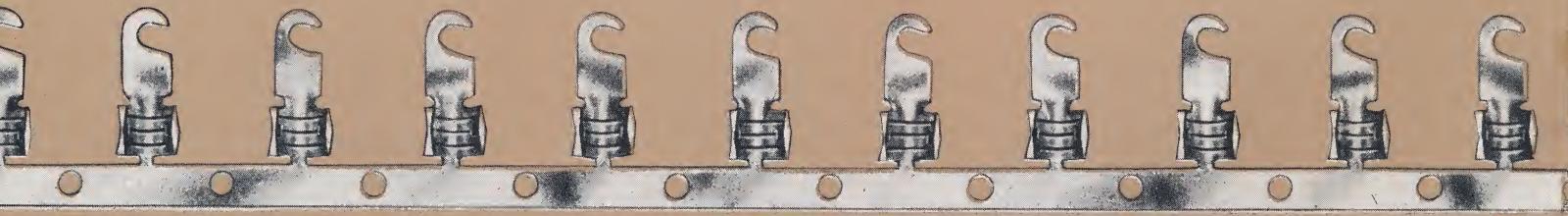
Part Number	Style	Cord Dia. Range	Stock Thicks.	Material	Nominal			Remarks
					E	C	L	
21016-3	1	.210-.250	.025	ALUMINUM	.250	.125	.437	
21016-8	1	.250-.280	.025	ALUMINUM	.250	.125	.437	
21016-10	2	.165-.185	.025	ALUMINUM	.250	.125	.437	No Serrations Or Windows



## Cord Clamps . . .

AVAILABLE LOOSE ONLY

Part Number	Stud Size	Insulation Dia. Range	Stock Thicks.	Material	Finish	Nominal			Remarks
						E	L	W	
21A020-1	#6 (.150)	.165-.185	.018	STEEL	PLAIN	.500	.750	.245	No Serrations
21A020-2	#6 (.150)	.165-.185	.018	STEEL	Yellow Iridite	.500	.750	.245	



Malco Products Are Covered by One or More of the Following U.S. and Corresponding Foreign Patents and Other Patent Applications Pending

2,674,724	2,811,702	2,814,024	2,814,802	2,871,551	2,877,441	2,914,745	2,983,898	3,067,902	3,072,880	3,070,772
2,995,617	3,002,654	3,002,669	3,004,581	3,030,603	3,044,040	3,060,402	3,063,139	3,077,027	3,071,844	3,086,074

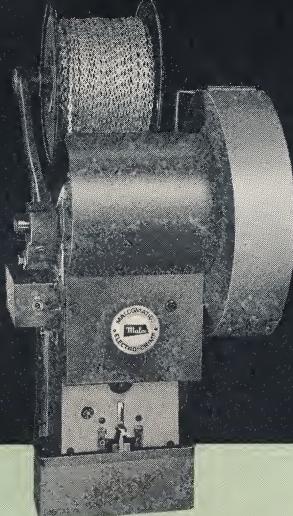
**MALCO MANUFACTURING COMPANY, INC.**

4025 WEST LAKE STREET, CHICAGO, ILLINOIS 60624 • VAn Buren 6-9300



Malco

# MULTI-CRIMP SPADE and RING TERMINALS



in chain form for  
rapid application with  
**Malcomatic®**  
Electro-Crimp Machine



**MALCO MANUFACTURING COMPANY, INC.**

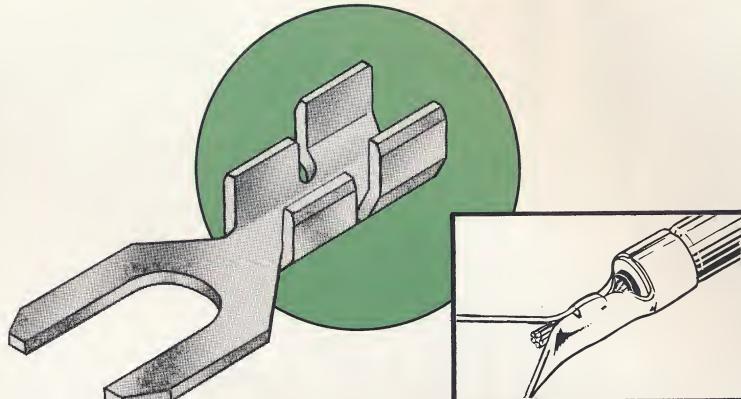
4025 WEST LAKE STREET, CHICAGO, ILLINOIS 60624 • VAn Buren 6-9300

SOLDER LUGS • PRINTED CIRCUIT HARDWARE • CONNECTORS • WRAP-A-WIRE TERMINALS

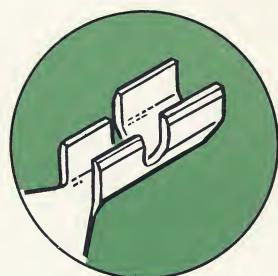
# SPADE AND RING

## FEATURES

- Designed to accommodate a wide range of wire and insulation sizes with the exclusive MULTI-CRIMP feature maintaining one crimp setting
- Quality controlled for dimensional and electrical uniformity
- Coined edges provide smooth uniform crimp



- Available with or without insulation support and insulation pierce



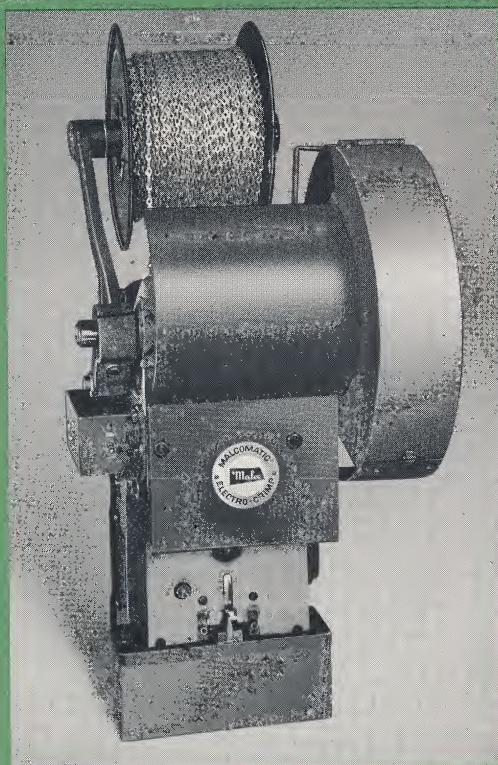
wire crimp  
with insulation  
support



insulation  
pierce



wire  
crimp



## MALCOMATIC® Electro-Crimp Machine

Malcomatic Electro-Crimp Machine is especially designed for crimping all Ring and Spade Terminals shown in this bulletin, in high production quantities. The machine is suitable for bench mounting, and is easily adapted to new or existing production line setups. A skilled operator is not required.

### FEATURES

- High productivity
- Simple ram adjustment for variations in wire sizes
- Quick jaw and anvil changeovers
- Spare parts from stock

### SPECIFICATIONS

- WEIGHT: 125 lbs.
- HEIGHT: 22 in.
- WIDTH: 14 in.
- DEPTH: 19 in.
- POWER: 115 v., 12 amp., 60 cycle

# ING TERMINALS

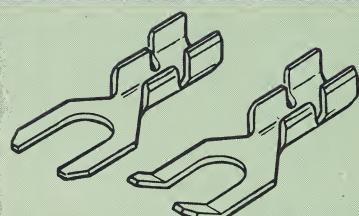
## Index

PART NUMBER	PAGE	PART NUMBER	PAGE	PART NUMBER	PAGE
10001-0.....SR-4		10037-8.....SR-7		15027-5.....SR-9	
10001-1.....SR-4		10038-1.....SR-5		15028-1....SR-11	
10001-2.....SR-4		10038-2.....SR-5		15028-2....SR-11	
10001-3.....SR-4		10038-3.....SR-5		15028-3....SR-11	
10001-4.....SR-4		10038-4.....SR-5		15028-4....SR-11	
10001-5.....SR-4		10038-7.....SR-5		15028-6....SR-11	
10001-6.....SR-4		10038-8.....SR-5		15030-1....SR-10	
10001-7.....SR-4		10038-9.....SR-5		15030-2....SR-10	
10001-8.....SR-4		10038-10....SR-5		15030-3....SR-10	
10001-9.....SR-4		10038-11....SR-5		15030-4....SR-10	
10001-10....SR-4		10038-12....SR-5		15030-5....SR-10	
10001-11....SR-4		10040-1.....SR-7		15030-6....SR-10	
10002-0.....SR-4		10040-2.....SR-7		15030-7....SR-10	
10002-1.....SR-4		10040-3.....SR-7		15030-8....SR-10	
10003-0.....SR-4		10040-4.....SR-7		15031-1.....SR-9	
10003-1.....SR-4		10040-5.....SR-7		15031-2.....SR-9	
10033-2.....SR-5		10040-6.....SR-7		15032-1....SR-11	
10033-3.....SR-5		10040-7.....SR-7		15033-1....SR-11	
10033-4.....SR-5		10040-8.....SR-7		15033-2....SR-11	
10033-5.....SR-5		10040-9.....SR-7		15039-1....SR-10	
10034-1.....SR-6		10040-10....SR-7		15039-2....SR-10	
10034-2.....SR-6		10040-11....SR-7		15039-3....SR-10	
10034-3.....SR-6		10040-12....SR-7		15039-4....SR-10	
10034-4.....SR-6		15004-0.....SR-8		15039-5....SR-10	
10034-5.....SR-6		15004-1.....SR-8		15039-6....SR-10	
10034-6.....SR-6		15004-2.....SR-8		15039-7....SR-10	
10034-7.....SR-6		15004-3.....SR-8		15039-8....SR-10	
10034-8.....SR-6		15004-4.....SR-8		15039-9....SR-10	
10034-10....SR-6		15004-5.....SR-8		15026-1.....SR-8	
10035-1.....SR-6		15026-1.....SR-8		15039-10..SR-10	
10035-2.....SR-6		15026-2.....SR-8		15040-1.....SR-9	
10035-3.....SR-6		15026-3.....SR-8		15040-2.....SR-9	
10035-4.....SR-6		15026-4.....SR-8		15040-3....SR-9	
10036-1.....SR-6		15026-5.....SR-8		15040-4....SR-9	
10036-2.....SR-6		15026-6....SR-8		15040-5....SR-9	
10036-3.....SR-6		15026-7....SR-8		15040-6....SR-9	
10036-4.....SR-6		15026-9....SR-8		15040-7....SR-9	
10037-1.....SR-7		15027-0.....SR-9		15040-8....SR-9	
10037-2.....SR-7		15027-1.....SR-9		15040-9....SR-9	
10037-3.....SR-7		15027-2.....SR-9		15040-10....SR-9	
10037-4.....SR-7		15027-3.....SR-9		15040-11....SR-9	
10037-5.....SR-7		15027-4.....SR-9		15040-12....SR-9	
10037-6.....SR-7				20001-1....SR-11	
10037-7.....SR-7				20005-1....SR-11	

### SPADE TERMINALS

wire crimp  
with insulation support

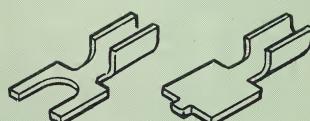
page SR-4, 5, 7



### SPADE TERMINALS AND PLAIN TAB TERMINALS

wire crimp

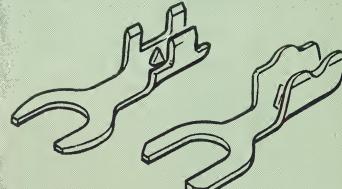
page SR-4



### SPADE TERMINALS

insulation pierce

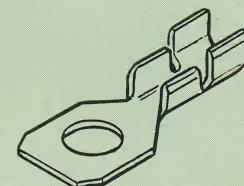
page SR-5, 6, 7



### RING TERMINALS

wire crimp  
with insulation support

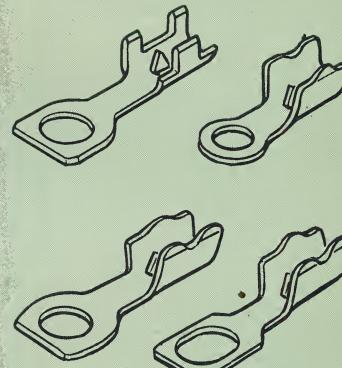
page SR-8, 9, 10



### RING TERMINALS

insulation pierce

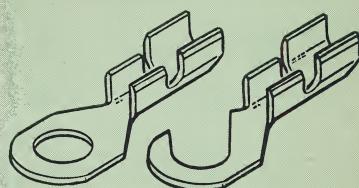
page SR-8, 10, 11



### RING TERMINALS AND HOOK TERMINALS

wire crimp with  
insulation support

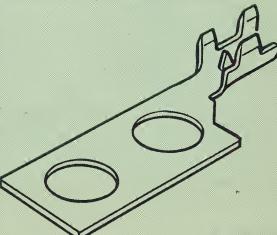
page SR-9



### FLAG TERMINALS

insulation pierce

page SR-11



## HOW TO ORDER

Wire diameter ranges shown for parts listed in this catalog are for reference only.

With your request for quotation or purchase order, please submit 10 feet of wire to determine the correct part number for the type of insulation and wire diameter used in your application.

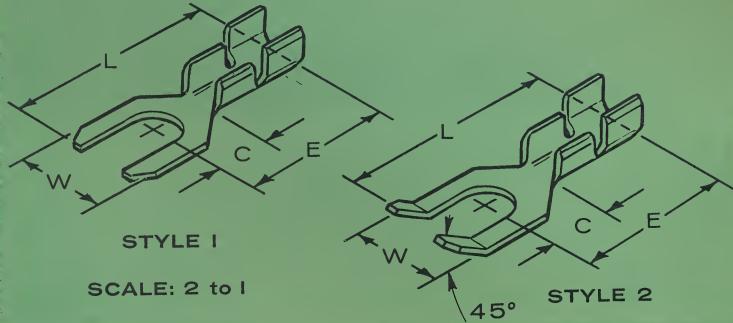


# Spade Terminals

FULL SCALE



wire crimp with insulation support

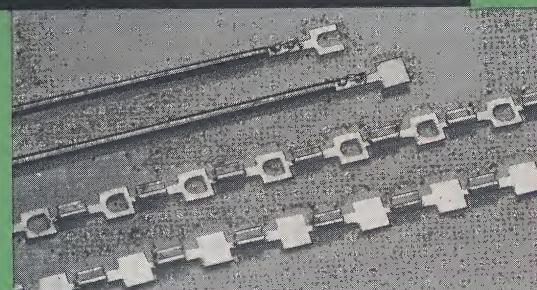


Part Number	Style	Wire Range	Stud Size	Insulation Dia. Range	Stock Thicks.	Material	Nominal				Remarks
							E	L	C	W	
10001-0	1	20-27	#6 (.146)	.040-.110	.020	TINNED BRASS	.473	.675	.165	.275	
10001-1	1	20-27	#6 (.146)	.040-.110	.020	BRASS	.473	.675	.165	.275	
10001-2	1	20-27	#8 (.172)	.040-.110	.020	TINNED BRASS	.473	.675	.165	.275	
10001-3	1	20-27	#8 (.172)	.040-.110	.020	BRASS	.473	.675	.165	.275	
10001-4	1	20-27	#5 (.132)	.040-.110	.020	TINNED BRASS	.523	.675	.215	.250	
10001-5	1	20-27	#5 (.132)	.040-.110	.020	BRASS	.523	.675	.215	.250	
10001-6	2	20-27	#6 (.146)	.040-.110	.020	TINNED BRASS	.473	.660	.165	.275	
10001-7	2	20-27	#6 (.146)	.040-.110	.020	BRASS	.473	.660	.165	.275	
10001-8	2	20-27	#8 (.172)	.040-.110	.020	TINNED BRASS	.473	.660	.165	.275	
10001-9	2	20-27	#8 (.172)	.040-.110	.020	BRASS	.473	.660	.165	.275	
10001-10	2	20-27	#5 (.132)	.040-.110	.020	TINNED BRASS	.523	.660	.215	.250	
10001-11	2	20-27	#5 (.132)	.040-.110	.020	BRASS	.523	.660	.215	.250	

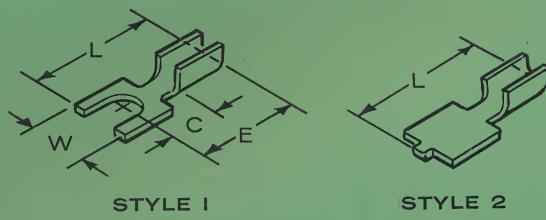
Chain style only

# SPADE TERMINALS and PLAIN TAB TERMINALS

FULL SCALE



wire crimp



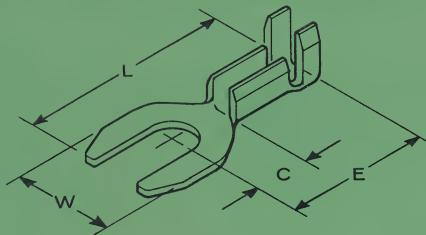
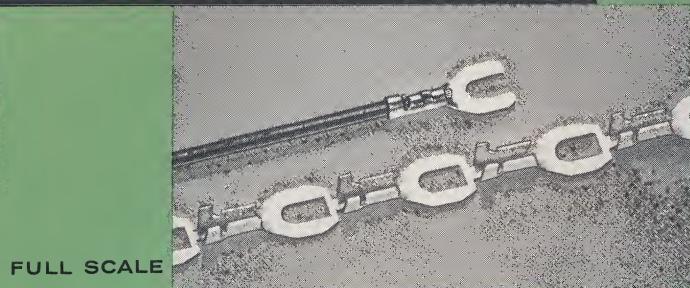
Part Number	Style	Wire Range	Stud Size	Stock Thicks.	Material	Nominal				Remarks
						E	L	C	W	
10002-0	1	22-27	#2 (.094)	.020	TINNED BRASS	.327	.406	.156	.187	
10002-1	1	22-27	#2 (.094)	.020	BRASS	.327	.406	.156	.187	
10003-0	2	22-27		.020	TINNED BRASS		.421		.187	
10003-1	2	22-27		.020	BRASS		.421		.187	

Chain style only



## Spade Terminals

wire crimp with insulation support



SCALE: 2 to 1

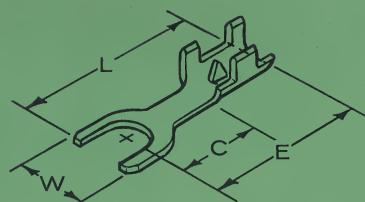
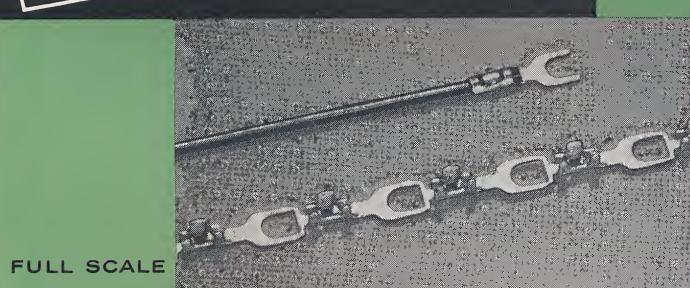
Part Number	Wire Range	Stud Size	Insulation Dia. Range	Stock Thicks.	Material	Nominal				Remarks
						E	L	C	W	
10038-1	20-16	#6 (.146)	.090-.130	.020	BRASS	.513	.675	.201	.281	
10038-2	20-16	#6 (.146)	.090-.130	.020	TINNED BRASS	.513	.675	.201	.281	
10038-3	20-16	#8 (.172)	.090-.130	.020	BRASS	.513	.675	.201	.281	
10038-4	20-16	#8 (.172)	.090-.130	.020	TINNED BRASS	.513	.675	.201	.281	
10038-7	20-16	#6 (.146)	.090-.130	.020	BRASS	.513	.675	.201	.312	
10038-8	20-16	#6 (.146)	.090-.130	.020	TINNED BRASS	.513	.675	.201	.312	
10038-9	20-16	#8 (.172)	.090-.130	.020	BRASS	.513	.675	.201	.312	
10038-10	20-16	#8 (.172)	.090-.130	.020	TINNED BRASS	.513	.675	.201	.312	
10038-11	20-16	#10 (.199)	.090-.130	.020	BRASS	.513	.675	.201	.312	
10038-12	20-16	#10 (.199)	.090-.130	.020	TINNED BRASS	.513	.675	.201	.312	

Chain style only



## Spade Terminals

insulation pierce



SCALE: 2 to 1

Part Number	Stud Size	Insulation Dia. Range	Stock Thicks.	Material	Nominal				Remarks
					E	L	C	W	
10033-2	#4 (.120)	.040-.080	.020	BRASS	.487	.587	.273	.213	
10033-3	#4 (.120)	.040-.080	.020	TINNED BRASS	.487	.587	.273	.213	
10033-4	#6 (.146)	.040-.080	.020	BRASS	.487	.587	.273	.213	
10033-5	#6 (.146)	.040-.080	.020	TINNED BRASS	.487	.587	.273	.213	

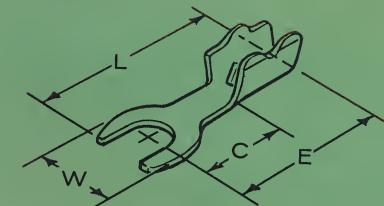
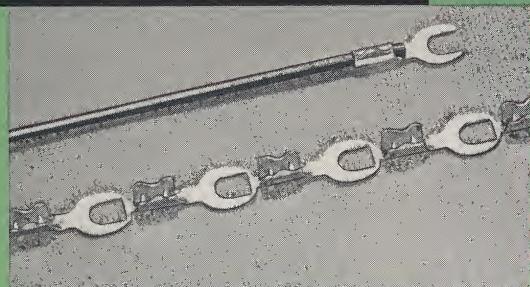
Note: Parts may be purchased loose by adding the letter (A) after the first two digits.



## Spade Terminals

insulation pierce

FULL SCALE

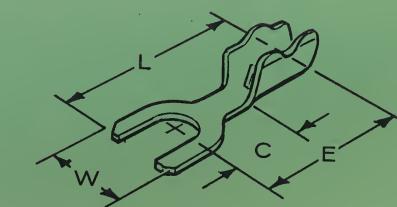
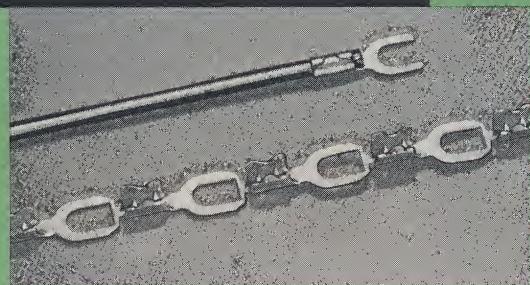


SCALE: 2 to 1

Part Number	Stud Size	Insulation Dia. Range	Stock Thck.	Material	Nominal				Remarks
					E	L	C	W	
10034-1	#5 (.132)	.060-.080	.016	BRASS	.487	.587	.269	.254	
10034-2	#5 (.132)	.040-.059	.016	BRASS	.487	.587	.269	.254	
10034-3	#5 (.132)	.060-.080	.016	BRASS	.487	.587	.269	.213	
10034-4	#5 (.132)	.040-.059	.016	BRASS	.487	.587	.269	.213	
10034-5	#5 (.132)	.060-.080	.016	TINNED BRASS	.487	.587	.269	.254	
10034-6	#5 (.132)	.040-.059	.016	TINNED BRASS	.487	.587	.269	.254	
10034-7	#5 (.132)	.060-.080	.016	TINNED BRASS	.487	.587	.269	.213	
10034-8	#5 (.132)	.040-.059	.016	TINNED BRASS	.487	.587	.269	.213	
10034-10	#6 (.146)	.060-.080	.016	TINNED BRASS	.487	.587	.269	.254	

Note: Parts may be purchased loose by adding the letter (A) after the first two digits.

FULL SCALE



SCALE: 2 to 1

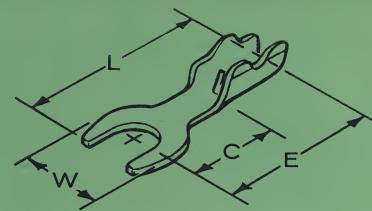
Part Number	Stud Size	Insulation Dia. Range	Stock Thck.	Material	Nominal				Remarks
					E	L	C	W	
10035-1	#5 (.132)	.080-.100	.020	BRASS	.435	.587	.217	.254	
10035-2	#5 (.132)	.080-.100	.020	TINNED BRASS	.435	.587	.217	.254	
10035-3	#6 (.146)	.080-.100	.020	BRASS	.435	.587	.217	.254	
10035-4	#6 (.146)	.080-.100	.020	TINNED BRASS	.435	.587	.217	.254	
10036-1	#6 (.146)	.080-.100	.020	BRASS	.435	.587	.217	.275	
10036-2	#6 (.146)	.080-.100	.020	TINNED BRASS	.435	.587	.217	.275	
10036-3	#8 (.172)	.080-.100	.020	BRASS	.435	.587	.217	.275	
10036-4	#8 (.172)	.080-.100	.020	TINNED BRASS	.435	.587	.217	.275	

Note: Parts may be purchased loose by adding the letter (A) after the first two digits.



## Spade Terminals

insulation pierce



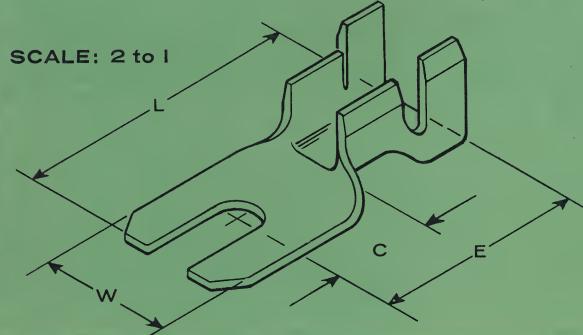
SCALE: 2 to 1

Part Number	Stud Size	Insulation Dia. Range	Stock Thicks.	Material	Nominal				Remarks
					E	L	C	W	
10037-1	#5 (.132)	.035-.045	.016	BRASS	.487	.587	.269	.254	
10037-2	#5 (.132)	.035-.045	.016	BRASS	.487	.587	.269	.213	
10037-3	#5 (.132)	.035-.045	.016	TINNED BRASS	.487	.587	.269	.254	
10037-4	#5 (.132)	.035-.045	.016	TINNED BRASS	.487	.587	.269	.213	
10037-5	#4 (.120)	.035-.045	.016	BRASS	.487	.587	.269	.213	
10037-6	#4 (.120)	.035-.045	.016	TINNED BRASS	.487	.587	.269	.213	
10037-7	#6 (.146)	.035-.045	.016	BRASS	.487	.587	.269	.254	
10037-8	#6 (.146)	.035-.045	.016	TINNED BRASS	.487	.587	.269	.254	

Note: Parts may be purchased loose by adding the letter (A) after the first two digits.



wire crimp with insulation support



SCALE: 2 to 1

Part Number	Wire Range	Stud Size	Insulation Dia. Range	Stock Thicks.	Material	Nominal				Remarks
						E	L	C	W	
10040-1	14-12	#6 (.146)	.130-.200	.020	BRASS	.663	.850	.319	.375	
10040-2	14-12	#6 (.146)	.130-.200	.020	TINNED BRASS	.663	.850	.319	.375	
10040-3	14-12	#8 (.172)	.130-.200	.020	BRASS	.663	.850	.319	.375	
10040-4	14-12	#8 (.172)	.130-.200	.020	TINNED BRASS	.663	.850	.319	.375	
10040-5	14-12	#10 (.198)	.130-.200	.020	BRASS	.663	.850	.319	.375	
10040-6	14-12	#10 (.198)	.130-.200	.020	TINNED BRASS	.663	.850	.319	.375	
10040-7	14-12	#6 (.146)	.130-.200	.030	BRASS	.663	.850	.319	.375	
10040-8	14-12	#6 (.146)	.130-.200	.030	TINNED BRASS	.663	.850	.319	.375	
10040-9	14-12	#8 (.172)	.130-.200	.030	BRASS	.663	.850	.319	.375	
10040-10	14-12	#8 (.172)	.130-.020	.030	TINNED BRASS	.663	.850	.319	.375	
10040-11	14-12	#10 (.198)	.130-.200	.030	BRASS	.663	.850	.319	.375	
10040-12	14-12	#10 (.198)	.130-.200	.030	TINNED BRASS	.663	.850	.319	.375	

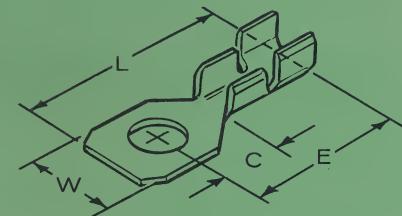
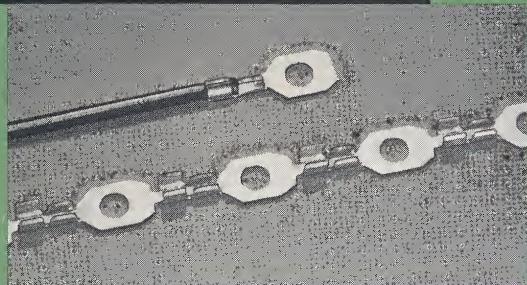
Chain style only



# Ring Terminals

wire crimp with insulation support

FULL SCALE

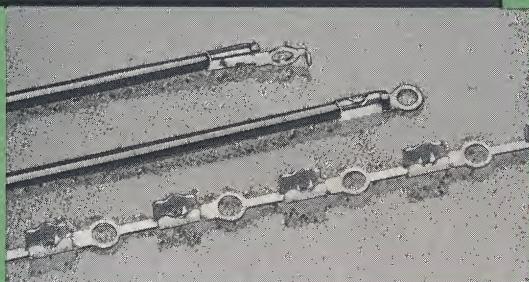


SCALE: 2 to 1

Part Number	Wire Range	Stud Size	Insulation Dia. Range	Stock Thicks.	Material	Nominal				Remarks
						E	L	C	W	
15004-0	20-27	#6 (.146)	.040-.110	.020	TINNED BRASS	.510	.675	.202	.275	
15004-1	20-27	#6 (.146)	.040-.110	.020	BRASS	.510	.675	.202	.275	
15004-2	20-27	#8 (.172)	.040-.110	.020	TINNED BRASS	.510	.675	.202	.275	
15004-3	20-27	#8 (.172)	.040-.110	.020	BRASS	.510	.675	.202	.275	
15004-4	20-27	#10 (.203)	.040-.110	.020	TINNED BRASS	.510	.675	.202	.275	
15004-5	20-27	#10 (.203)	.040-.110	.020	BRASS	.510	.675	.202	.275	

Chain style only

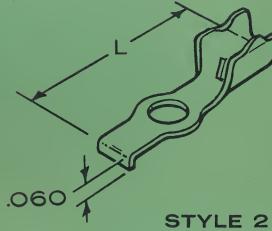
FULL  
SCALE



insulation pierce



STYLE 1



STYLE 2

SCALE: 2 to 1

Part Number	Style	Stud Size	Insulation Dia. Range	Stock Thicks.	Material	Nominal				Remarks
						E	L	C	W	
15026-1	1	#3 (.112)	.080-.100	.020	BRASS	.381	.469	.163	.176	
15026-2	1	#3 (.112)	.080-.100	.020	TINNED BRASS	.381	.469	.163	.176	
15026-3	1	#3 (.112)	.080-.100	.020	NICKEL PLATED BRASS	.381	.469	.163	.176	
15026-4	1	#2 (.094)	.080-.100	.020	BRASS	.381	.469	.163	.176	
15026-5	1	#2 (.094)	.080-.100	.020	TINNED BRASS	.381	.469	.163	.176	
15026-6	2	#3 (.112)	.080-.100	.020	BRASS	.381	.584	.163	.176	{ 1/16 tab formed in crimp. mach.
15026-7	2	#3 (.112)	.080-.100	.020	TINNED BRASS	.381	.584	.163	.176	
15026-9	1	#2 (.094)	.040-.060	.016	TINNED BRASS	.381	.469	.163	.176	

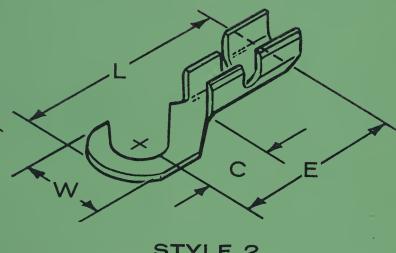
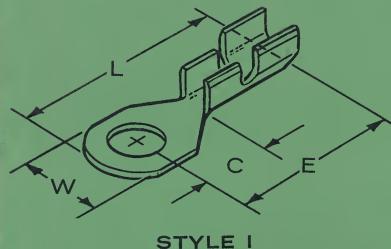
Note: Parts may be purchased loose by adding the letter (A) after the first two digits.



## RING TERMINALS and HOOK TERMINALS

FULL  
SCALE

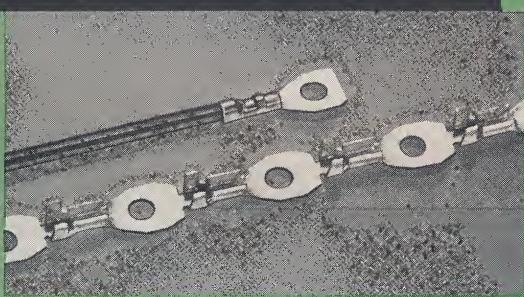
wire crimp with insulation support



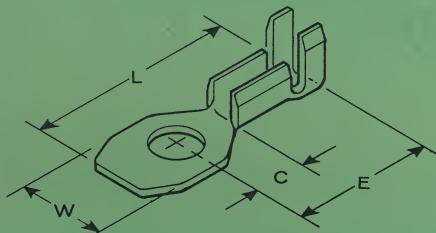
SCALE: 2 to 1

Part Number	Style	Wire Range	Stud Size	Insulation Dia. Range	Stock Thcks.	Material	Nominal				Remarks
							E	L	C	W	
15027-0	1	20-27	#6 (.146)	.040-.110	.020	TINNED BRASS	.524	.659	.218	.270	
15027-1	1	20-27	#6 (.146)	.040-.110	.020	BRASS	.524	.659	.218	.270	
15027-2	1	20-27	#8 (.172)	.040-.110	.020	TINNED BRASS	.524	.659	.218	.270	
15027-3	1	20-27	#8 (.172)	.040-.110	.020	BRASS	.524	.659	.218	.270	
15027-4	1	20-27	#10 (.200)	.040-.110	.020	TINNED BRASS	.524	.659	.218	.270	
15027-5	1	20-27	#10 (.200)	.040-.110	.020	BRASS	.524	.659	.218	.270	
15031-1	2	20-27	#8 (.172)	.040-.110	.020	TINNED BRASS	.524	.659	.218	.270	{ Hook is notched in crimp. mach.
15031-2	2	20-27	#8 (.172)	.040-.110	.020	BRASS	.524	.659	.218	.270	

Chain style only

FULL  
SCALE

wire crimp with insulation support



SCALE: 2 to 1

Part Number	Wire Range	Stud Size	Insulation Dia. Range	Stock Thcks.	Material	Nominal				Remarks
						E	L	C	W	
15040-1	20-16	#6 (.146)	.090-.130	.020	BRASS	.513	.675	.201	.281	
15040-2	20-16	#6 (.146)	.090-.130	.020	TINNED BRASS	.513	.675	.201	.281	
15040-3	20-16	#8 (.172)	.090-.130	.020	BRASS	.513	.675	.201	.281	
15040-4	20-16	#8 (.172)	.090-.130	.020	TINNED BRASS	.513	.675	.201	.281	
15040-5	20-15	#10 (.199)	.090-.130	.020	BRASS	.513	.675	.201	.281	
15040-6	20-16	#10 (.199)	.090-.130	.020	TINNED BRASS	.513	.675	.201	.281	
15040-7	20-16	#6 (.146)	.090-.130	.020	BRASS	.513	.675	.201	.312	
15040-8	20-16	#6 (.146)	.090-.130	.020	TINNED BRASS	.513	.675	.201	.312	
15040-9	20-16	#8 (.172)	.090-.130	.020	BRASS	.513	.675	.201	.312	
15040-10	20-16	#8 (.172)	.090-.130	.020	TINNED BRASS	.513	.675	.201	.312	
15040-11	20-16	#10 (.199)	.090-.130	.020	BRASS	.513	.675	.201	.312	
15040-12	20-16	#10 (.199)	.090-.130	.020	TINNED BRASS	.513	.675	.201	.312	

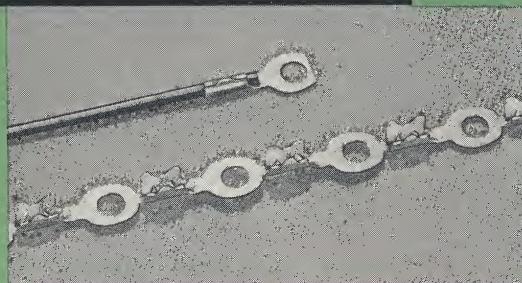
Chain style only



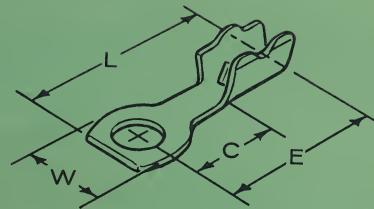
# Ring Terminals

insulation pierce

FULL SCALE



SCALE: 2 to 1



Part Number	Stud Size	Insulation Dia. Range	Stock Thicks.	Material	Nominal				Remarks
					E	L	C	W	
15030-1	#5 (.132)	.061-.080	.016	BRASS	.487	.587	.269	.254	
15030-2	#5 (.132)	.040-.060	.016	BRASS	.487	.587	.269	.254	
•15030-3	#5 (.132)	.061-.080	.016	BRASS	.487	.587	.269	.213	
15030-4	#5 (.132)	.040-.060	.016	BRASS	.487	.587	.269	.213	
15030-5	#5 (.132)	.061-.080	.016	TINNED BRASS	.487	.587	.269	.254	
15030-6	#5 (.132)	.040-.060	.016	TINNED BRASS	.487	.587	.269	.254	
15030-7	#5 (.132)	.061-.080	.016	TINNED BRASS	.487	.587	.269	.213	
15030-8	#5 (.132)	.040-.060	.016	TINNED BRASS	.487	.587	.269	.213	

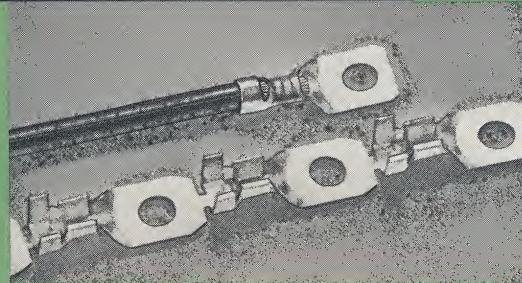
Note: Parts may be purchased loose by adding the letter (A) after the first two digits.



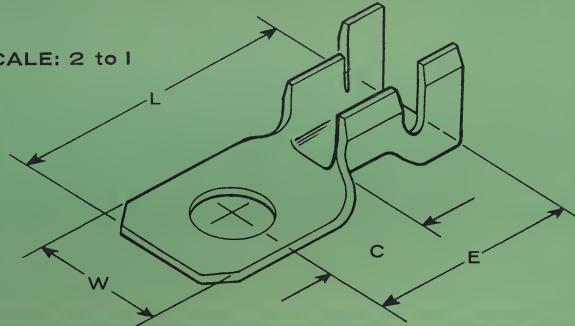
# Ring Terminals

wire crimp with insulation support

FULL SCALE



SCALE: 2 to 1

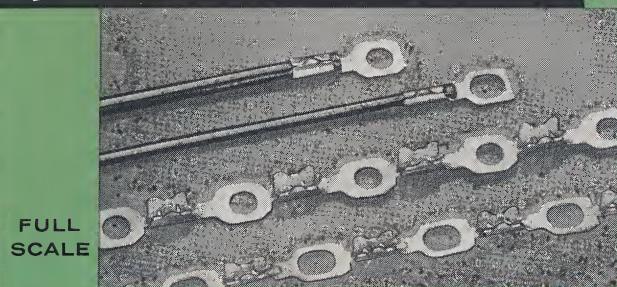


Part Number	Wire Range	Stud Size	Insulation Dia. Range	Stock Thicks.	Material	Nominal				Remarks
						E	L	C	W	
15039-1	14-12	#6 (.146)	.130-.200	.020	BRASS	.663	.850	.319	.375	
15039-2	14-12	#6 (.146)	.130-.200	.020	TINNED BRASS	.663	.850	.319	.375	
15039-3	14-12	#8 (.172)	.130-.200	.020	BRASS	.663	.850	.319	.375	
15039-4	14-12	#8 (.172)	.130-.200	.020	TINNED BRASS	.663	.850	.319	.375	
15039-5	14-12	#10 (.198)	.130-.200	.020	BRASS	.663	.850	.319	.375	
15039-6	14-12	#10 (.198)	.130-.200	.020	TINNED BRASS	.663	.850	.319	.375	
15039-7	14-12	1/4 (.266)	.130-.200	.020	BRASS	.663	.850	.319	.425	
15039-8	14-12	1/4 (.266)	.130-.200	.020	TINNED BRASS	.663	.850	.319	.425	
15039-9	14-12	5/16 (.329)	.130-.200	.020	BRASS	.663	.850	.319	.425	
15039-10	14-12	5/16 (.329)	.130-.200	.020	TINNED BRASS	.663	.850	.319	.425	

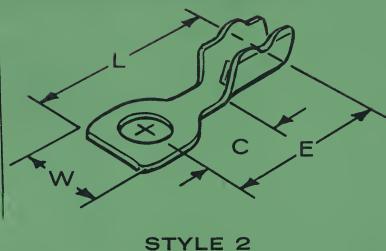
Chain style only



## Ring Terminals



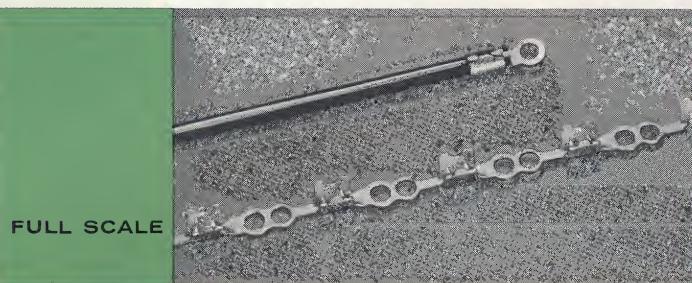
insulation pierce



SCALE: 2 to 1

Part Number	Style	Stud Size	Insulation Dia. Range	Stock Thicks.	Material	Nominal				Remarks
						E	L	C	W	
15032-1	1	#5 (.132)	.040-.060	.016	BRASS	.463	.587	.245	.213	
15033-1	2	#6 (.146)	.080-.100	.020	BRASS	.487	.587	.273	.275	
15033-2	2	#6 (.146)	.080-.100	.020	TINNED BRASS	.487	.587	.273	.275	

Note: Parts may be purchased loose by adding the letter (A) after the first two digits.

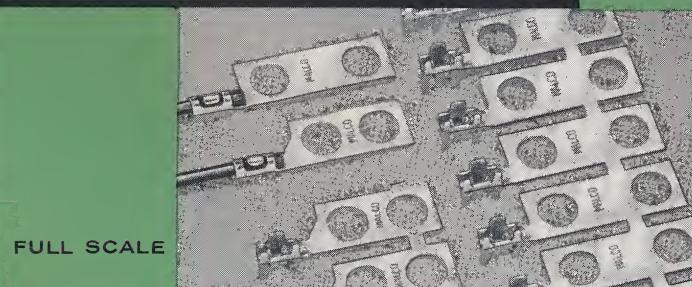


Part Number	Stud Size	Insulation Dia. Range	Stock Thicks.	Material	Nominal				Remarks
					E	L	C	W	
15028-1	#2 (.094)	.080-.100	.020	BRASS	.337	.425	.150	.176	
15028-2	#2 (.094)	.080-.100	.020	TINNED BRASS	.337	.425	.150	.176	
15028-3	#3 (.112)	.080-.100	.020	BRASS	.337	.425	.150	.176	
15028-4	#3 (.112)	.080-.100	.020	TINNED BRASS	.337	.425	.150	.176	
15028-6	#2 (.094)	.060-.080	.016	TINNED BRASS	.337	.425	.150	.176	

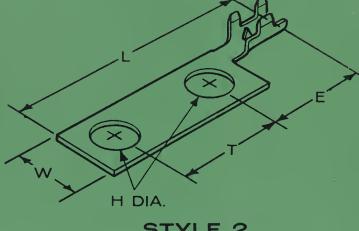
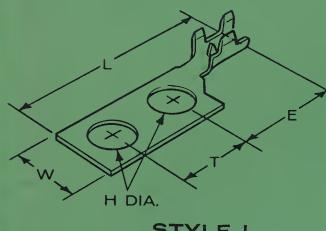
Note: Parts may be purchased loose by adding the letter (A) after the first two digits.



## Flag Terminals



insulation pierce



FULL SCALE

Part Number	Style	Insulation Dia. Range	Stock Thicks.	Material	Nominal					Remarks
					H	W	T	E	L	
20001-1	1	.040-.080	.020	BRASS	.197	.312	.312	.500	.968	
20005-1	2	.040-.080	.020	BRASS	.192	.312	.500	.453	1.109	

Note: Parts may be purchased loose by adding the letter (A) after the first two digits.



Malco Products Are Covered by One or More of the Following U.S. and Corresponding Foreign Patents and Other Patent Applications Pending

2,674,724 2,995,617	2,811,702 3,002,654	2,814,024 3,002,669	2,814,802 3,004,581	2,871,551 3,030,603	2,877,441 3,044,040	2,914,745 3,060,402	2,983,898 3,063,139	3,067,902 3,077,027	3,072,880 3,077,027	3,070,772 3,071,844	3,086,074
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**MALCO MANUFACTURING COMPANY, INC.**

4025 WEST LAKE STREET, CHICAGO, ILLINOIS 60624 • VAn Buren 6-9300

SOLDER LUGS • PRINTED CIRCUIT HARDWARE • CONNECTORS • WRAP-A-WIRE TERMINALS

Printed in U.S.A.

# MALCO WRAP-A-WIRE® P. C. BOARD TERMINALS\*

For Wire Wrap Applications and .025 x .062 Quick-Connect Receptacles



## General Description—

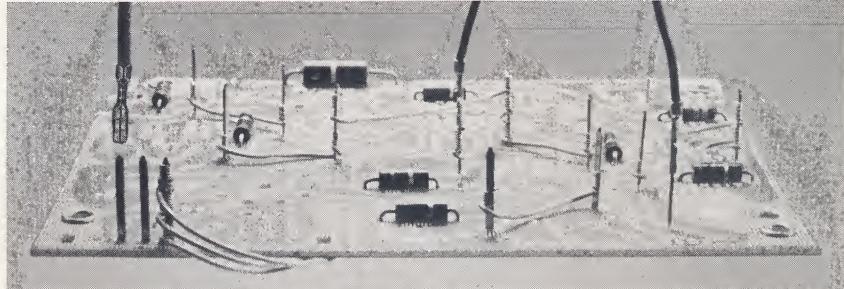
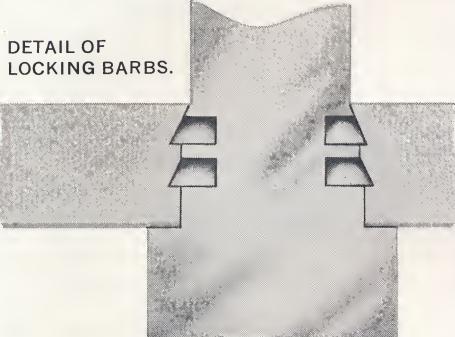
The Malco Wrap-A-Wire pin is designed to be used as a self locking terminal in 1/16" thick P.C. boards, terminal blocks, and strips, etc. that require quick-connect or wire

wrap connections. The terminal's special locking section holds within the P.C. board, assuring a strong mechanical fit before the soldering operation.

## Features—

- Malco Wrap-A-Wire Terminal reduces number of defective P.C. boards—cuts assembly costs.
- Clinching, formerly required to attach terminal to the board before soldering, is no longer necessary.
- Barbed shank fits into a .070" hole and securely holds terminal in P.C. board. Low silhouette on the circuit side of the board provides optimum solder configuration.

- Wrapost is resilient—there's less breakage of P.C. boards than with a rigid post—and the tendency to lift the copper laminate with a poorly aimed wire wrap gun or careless handling is minimized.
- Swaged tip directs wire wrap gun placement—helps guide matching crimp-quick receptacle.



WRAP-A-WIRE TERMINALS USED AS QUICK-CONNECT MALES AND AS WIRE WRAP PINS.

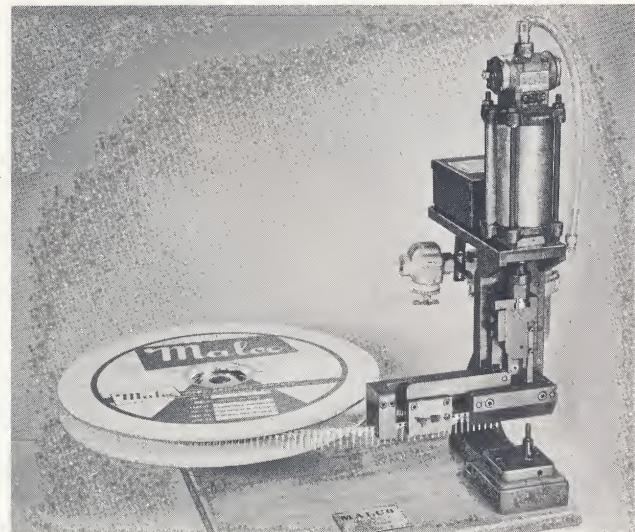
## Terminal Application Information—

Wrap-A-Wire Terminals may be staked into P.C. boards by several different methods. Loose part Wrap-A-Wire Terminals may be dropped into the proper size holes in P.C. card and subsequently staked by a hand arbor press. Larger volume production may require the use of the Malcomatic single inserter which individually drives and stakes the chain form

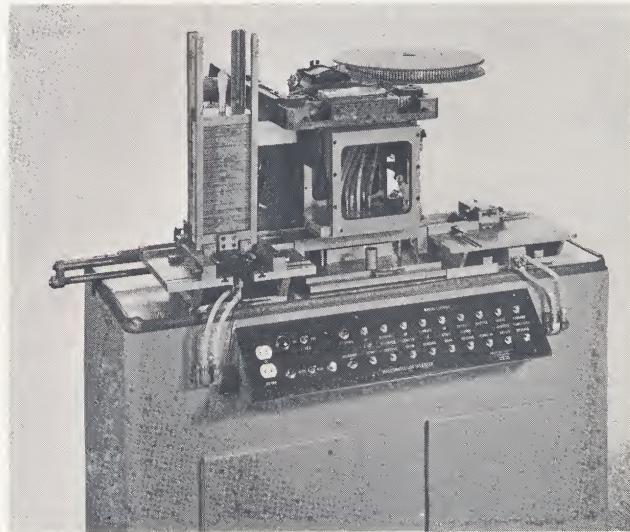
Wrap-A-Wire Terminals. For extremely large volume, the Malcomatic multiple inserter may be required. This machine automatically drives and stakes up to 54 terminals per stroke in any circuit configuration.

Please consult with the Malco sales department for specific information about Malcomatic terminal insertion equipment.

## Terminal Application Equipment—



- FEATURES**
- Semi automatic . . .
  - Suitable for bench mounting . . .
  - Template location for P.C. board and terminal.



- FEATURES**
- Fully automatic cycling . . .
  - Inserts up to 54 terminals simultaneously in any pattern of P.C. board configuration.

\* Patent pending

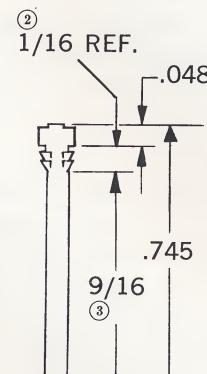
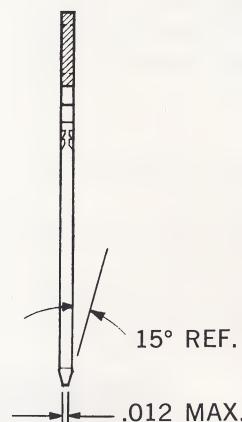
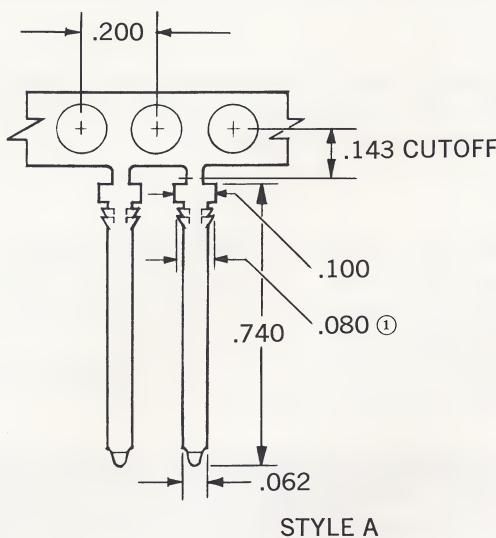
# MALCO WRAP-A-WIRE®

## P. C. BOARD TERMINALS\*

For Wire Wrap Applications and .025 x .062 Quick-Connect Receptacles



MALCO



\*Patent Pending

- Notes: ① To hold securely in a  $.070 \pm .002$  dia. hole.  
 ② For  $1/16"$  nominal P.C. board thickness  
 ③ Effective wire wrap length.

**TOLERANCES**  
 (Unless Otherwise noted)

DECIMALS	.X	$\pm .020$
	.XX	$\pm .010$
	.XXX	$\pm .005$
FRACTIONS		$\pm 1/64$

SCALE 2:1

STYLE	MATERIAL	PLATING	PART NO.	REMARKS
A	.025 Brass	Pre-Tinned	14117-10	Loose Part No. 5125-1
A	.025 Brass	Tinned	14117-11	Loose Part No. 5125-2
A	.025 Phos. Bronze	Pre-Tinned	14117-13	

For mating .025 x .062 quick-connect wire crimp receptacle. See Malco Bulletin No. 611-B, Series 12100



MALCO MANUFACTURING COMPANY INC

4025 WEST LAKE STREET • CHICAGO, ILLINOIS 60624 • PHONE (312) 826-9300

Malco®

- PIN TERMINALS
- RECEPTACLES
- DISCONNECTS

IN CHAIN STYLE APPLIED WITH MALCOMATIC® AUTOMATIC EQUIPMENT

MALCO MANUFACTURING COMPANY

4025 WEST LAKE STREET, CHICAGO, ILLINOIS 60624—VAn Buren 6-9300

SOLDER LUGS • PRINTED CIRCUIT HARDWARE • CONNECTORS • WRAP-A-WIRE TERMINALS

PART NUMBER	PAGE
11001-1.....	PT-27
11001-3.....	PT-27
11018-0.....	PT-27
11048-3.....	PT-27
11049-1.....	PT-28
11049-3.....	PT-28
11049-4.....	PT-28
11049-5.....	PT-28
11049-6.....	PT-28
11049-7.....	PT-28
11061-1.....	PT-28
11061-2.....	PT-28
11061-3.....	PT-28
11061-4.....	PT-28
11061-5.....	PT-28
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12021-0.....	PT- 5
12021-1.....	PT- 5
12021-2.....	PT- 5
12021-3.....	PT- 5
12021-4.....	PT- 5
12021-5.....	PT-15
12021-6.....	PT- 5
12021-7.....	PT- 5
12021-14.....	PT-15
12021-15.....	PT- 5
12021-16.....	PT- 5
12021-17.....	PT- 5
12027-0.....	PT- 6
12027-1.....	PT- 6
12027-2.....	PT- 6
12027-3.....	PT- 6
12047-0.....	PT- 5
12047-1.....	PT- 5
12047-2.....	PT- 5
12047-3.....	PT- 5
12052-0.....	PT- 8
12054-0.....	PT- 8
12072-4.....	PT-10
12080-0.....	PT-10
12089-1.....	PT-24
12093-1.....	PT-11
12093-2.....	PT-11
12093-3.....	PT-11

PART NUMBER	PAGE
12093-4.....	PT-11
12093-5.....	PT-11
12093-6.....	PT-11
12093-7.....	PT-11
12093-8.....	PT-11
12093-9.....	PT-11
12093-10.....	PT-11
12093-11.....	PT-11
12093-12.....	PT-11
12094-1.....	PT- 8
12094-2.....	PT- 8
12094-3.....	PT- 8
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12100-2.....	PT-11
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12103-2.....	PT-12
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12201-2.....	PT-13
12202-2.....	PT-13
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12212-2.....	PT-13
12221-2.....	PT- 6
12222-2.....	PT- 6
12225-1.....	PT- 7
12225-2.....	PT- 7
12226-1.....	PT-14
12226-2.....	PT-14
12231-2.....	PT- 6
12232-2.....	PT- 6
12235-1.....	PT- 7
12235-2.....	PT- 7
12236-1.....	PT-14

PART NUMBER	PAGE
12236-2.....	PT-14
12241-2.....	PT- 6
12242-2.....	PT- 6
12245-1.....	PT- 7
12245-2.....	PT- 7
12246-1.....	PT-14
12246-2.....	PT-14
12302-2.....	PT- 9
12303-2.....	PT- 9
12312-2.....	PT- 9
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13041-5.....	PT-23
13041-6.....	PT-23
13041-7.....	PT-23
13041-9.....	PT-21
13041-10.....	PT-21
13041-14.....	PT-24

INSULATING SLEEVE PART NUMBER	PAGE
29069-10.....	PT-16
29074-10.....	PT-16
29075-10.....	PT-16

## How To Order

Wire diameter ranges shown for parts listed in this catalog are for reference only.

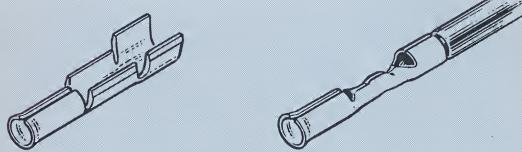
With your request for quotation or purchase order, please submit 10 feet of wire to determine the correct part number for the type of insulation and wire diameter used in your application.

"Chain Parts may be purchased loose by adding the letter "A" after the first two digits."

# Illustrated Index

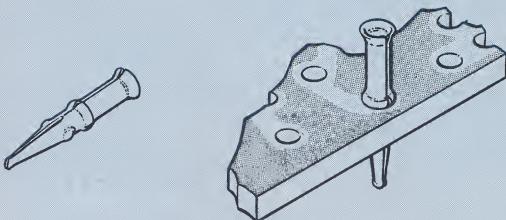
## Male and Female Connectors

Pages PT-4 through PT-15



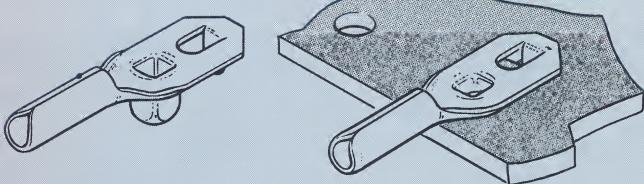
## Miniature Pin Terminals

Pages PT-18 through PT-24



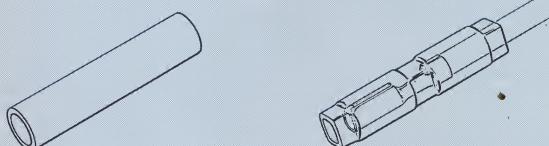
## Interlock Connectors

Pages PT-26 through PT-28



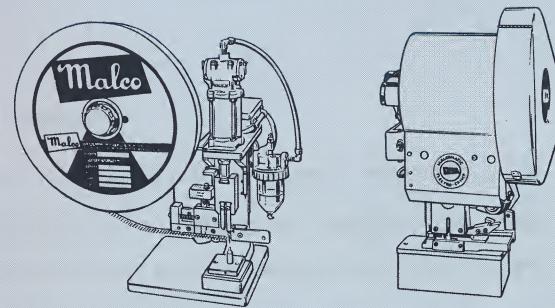
## Insulating Sleeves

Page PT-16

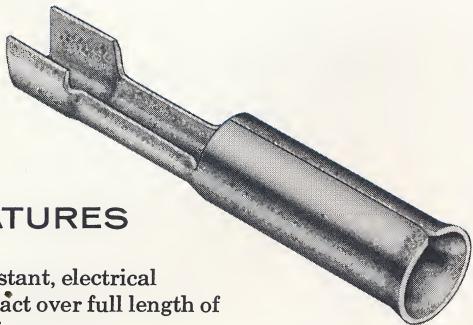


## Malcomatic® Inserting and Crimping Machines

- for crimping Malco  
male and female connectors ..... **Page PT-17**
- for attaching Malco  
insulating sleeves ..... **Page PT-17**
- for inserting Malco  
miniature pin terminals ..... **Page PT-25**
- for applying Malco  
interlock connectors ..... **Page PT-29**



## Male and Female Connectors



### FEATURES

- Constant, electrical contact over full length of mating areas
- Quality controlled to meet exacting specifications and to provide consistent insertion and extraction forces
- Full range of I.D.s and O.D.s available for wide variety of applications as either male or female interlocks
- Designed to accommodate wide range of wire sizes
- Furnished in chain form for high productivity with Malcomatic Machines

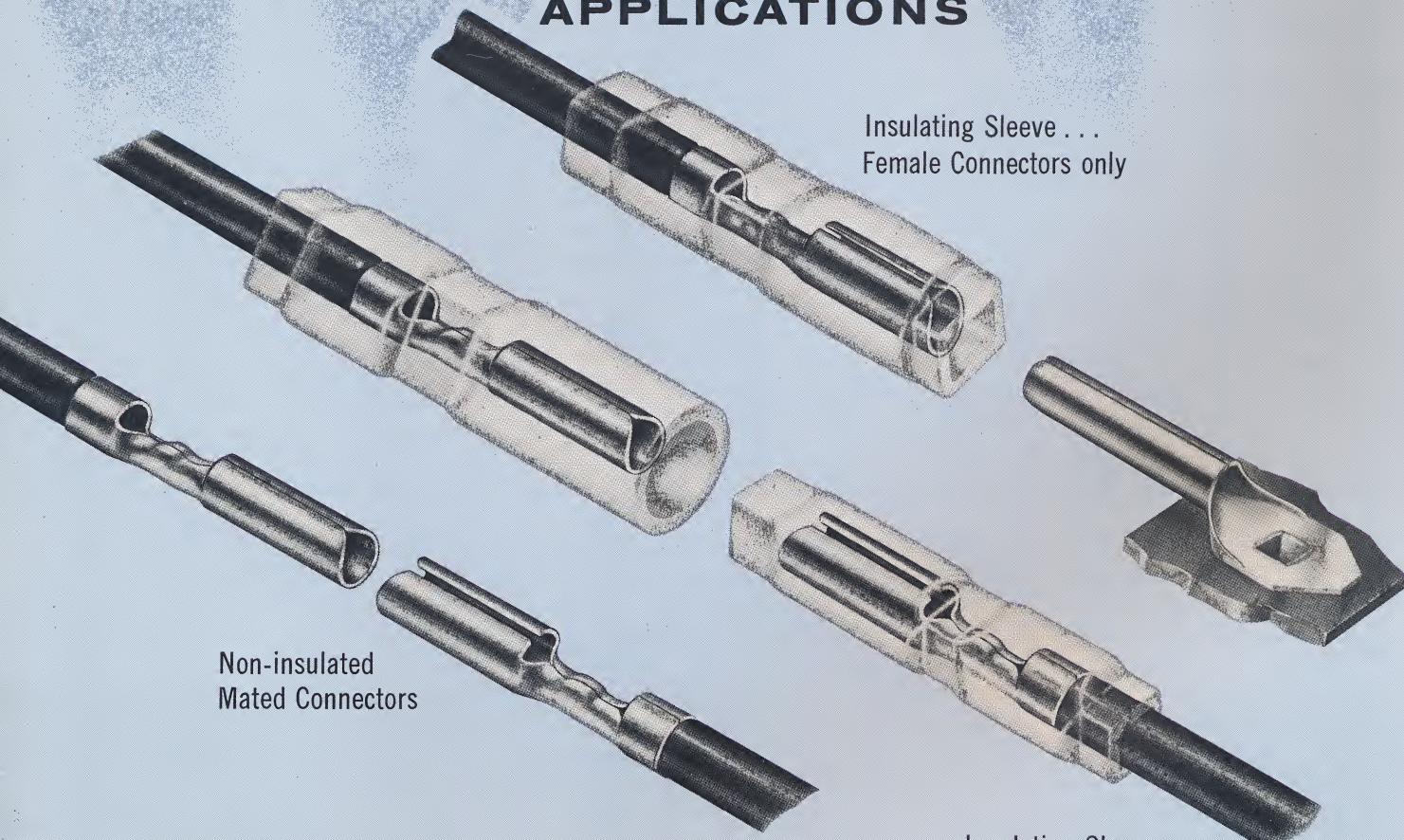
## Insulating Sleeves



### FEATURES

- Close quarter and "blind" spot insertion is quickly made without fail because sleeve guides male terminal
- Custom-made sleeve is securely crimped around connector—assures positive connection at all times
- Attaching machine shown on Page PT-17 has simple adjustment to vary dimension between end of sleeve and end of connector
- Made of super high impact polyvinyl chloride—non-inflammable

## APPLICATIONS



Non-insulated  
Mated Connectors

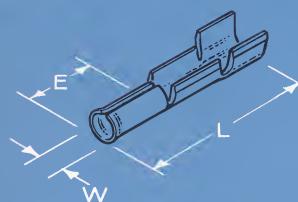
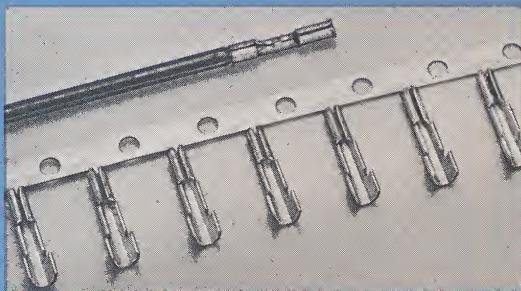
Insulating Sleeve . . .  
Female Connectors only

Insulating Sleeves . . .  
Male and Female Mated Connectors



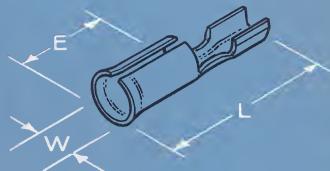
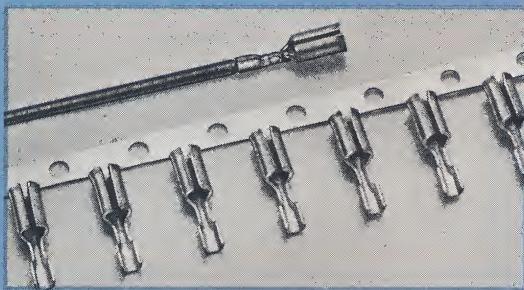
## Male and Female Connectors

### Pin Receptacles ... wire crimp with insulation support



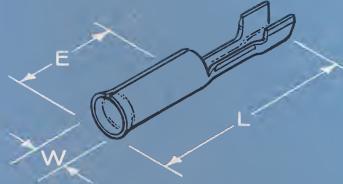
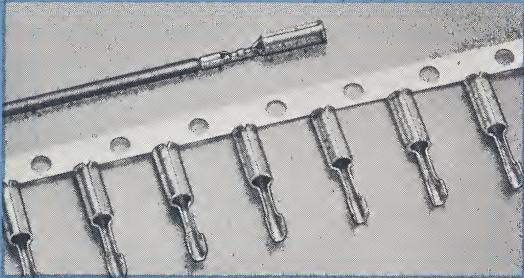
SCALE: 2 to 1

Part Number	Wire Range	Insulation O.D. Range	Stock Thicks.	Material	For Pin Dia.	Nominal			Remarks
						E	L	W	
12021-0	24-18	.050-.115	.0126	BERYL. COPPER	.065	.188	.531	.086	{ Used with Malco 13041 Group (See pages PT-21, PT-23 and PT-24)
12021-1	24-18	.050-.115	.0126	PRE-TINNED PHOS. BRONZE	.065	.188	.531	.086	
12021-2	24-18	.050-.115	.0126	PRE-TINNED BRASS	.065	.188	.531	.086	
12021-3	24-18	.050-.115	.010	PRE-TINNED BRASS	.065	.188	.531	.080	
12021-4	24-18	.050-.115	.010	PRE-TINNED PHOS. BRONZE	.065	.188	.531	.080	
12021-6	24-18	.050-.115	.010	PRE-TINNED BRASS	.062	.188	.531	.078	
12021-7	24-18	.050-.115	.010	PRE-TINNED PHOS. BRONZE	.062	.188	.531	.078	
12021-17	24-18	.050-.115	.0126	PRE-TINNED BERYL. COPPER	.065	.188	.531	.086	Used with Malco 13041 Group
12021-15	24-22	.060-.099	.010	PRE-TINNED BRASS	.040	.188	.466	.078	
12021-16	24-18	.050-.115	.010	PRE-TINNED BRASS	.040	.188	.531	.078	
12047-0	27-24	.040-.060	.010	PRE-TINNED BRASS	.065	.188	.531	.080	{ Used with Malco 13041 Group (See pages PT-21, PT-23 and PT-24)
12047-1	27-24	.040-.060	.0126	PRE-TINNED BRASS	.065	.188	.531	.086	
12047-2	27-24	.040-.060	.010	PRE-TINNED PHOS. BRONZE	.065	.188	.531	.080	
12047-3	27-24	.040-.060	.0126	PRE-TINNED BERYL. COPPER	.065	.188	.531	.086	

**Malco****Male and Female Connectors****Pin Receptacles ... wire crimp with insulation support**

SCALE: 2 to 1

Part Number	Wire Range		Insulation O.D. Range	Stock Thcks.	Material	For Pin Dia.	Nominal			Remarks
	Stranded	Solid					E	L	W	
12027-0	27-24	24-20	.040-.060	.0135	PRE-TINNED BRASS	.125	.250	.531	.146	{ Used with Malco 12052-0 or 12054-0 (See page PT-8)
12027-1	27-24	24-20	.040-.060	.0135	BERYL. COPPER	.125	.250	.531	.146	
12027-2	27-24	24-20	.040-.060	.0135	PRE-TINNED BRASS	.109	.250	.531	.130	{ Used with Malco 11001-1, 11001-3 or 11018-0 (See page PT-27)
12027-3	27-24	24-20	.040-.060	.0135	PRE-TINNED BRASS	.093	.250	.531	.117	{ Used with Malco 11061 Group (See page PT-28)

**Pin Receptacles ... wire crimp with insulation support**

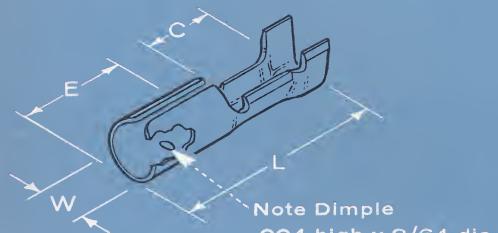
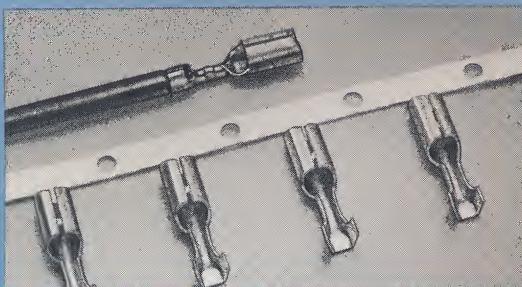
SCALE: 2 to 1

Part Number	Wire Range	Insulation O.D. Range	Stock Thcks.	Material	For Pin Dia.	Use With Sleeve No.	Nominal			Remarks
							W	E	L	
12221-2	24-27	.040-.060	.0126	PRE-TINNED BRASS	.093	29069-10	.116	.308	.623	{ Used with Malco 11061-1 Group (See page PT-28)
12231-2	20-24	.060-.099	.0126	PRE-TINNED BRASS	.093	29069-10	.116	.308	.623	
12241-2	16-20	.100-.130	.0126	PRE-TINNED BRASS	.093	29069-10	.116	.308	.623	
12222-2	24-27	.040-.060	.0126	PRE-TINNED BRASS	.109	29069-10	.132	.308	.623	{ Used with Malco 11001-1 Group (See page PT-27)
12232-2	20-24	.060-.099	.0126	PRE-TINNED BRASS	.109	29069-10	.132	.308	.623	
12242-2	16-20	.100-.130	.0126	PRE-TINNED BRASS	.109	29069-10	.132	.308	.623	



## Male and Female Connectors

### Pin Receptacles ... wire crimp with insulation support



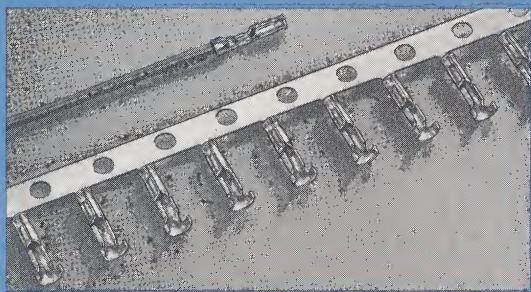
SCALE: 2 to 1

Part Number	Wire Range	Insulation O.D. Range	Stock Thicks.	Material	For Pin Dia.	Use With Sleeve No.	Nominal				Remarks
							E	C	L	W	
12225-1	24-27	.040-.059	.0126	BRASS	.156	29074-10	.275	.281	.671	.178	NOTE DIMPLE Used with Malco 11048-3 (See page PT-27)
12225-2	24-27	.040-.059	.0126	PRE-TINNED BRASS	.156	29074-10	.275	.281	.671	.178	
12235-1	20-24	.060-.099	.0126	BRASS	.156	29074-10	.275	.281	.671	.178	
12235-2	20-24	.060-.099	.0126	PRE-TINNED BRASS	.156	29074-10	.275	.281	.671	.178	
12245-1	16-20	.100-.130	.0126	BRASS	.156	29074-10	.275	.281	.671	.178	
12245-2	16-20	.100-.130	.0126	PRE-TINNED BRASS	.156	29074-10	.275	.281	.671	.178	

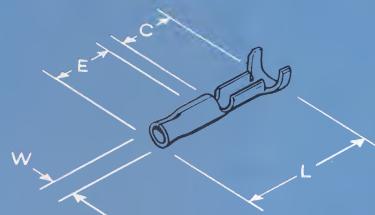


# Male and Female Connectors

## Pin Receptacles ... wire crimp with insulation support



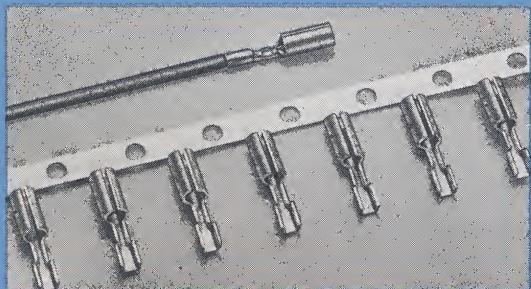
FOR .050 DIAMETER PIN



SCALE: 2 to 1

Part Number	Wire Range	Insulation O.D. Range	Stock Thicks.	Material	Nominal				Remarks
					E	C	L	W	
12094-1	26-22	.050-.115	.010	PHOSPHOR BRONZE	.156	.165	.350	.075	
12094-2	26-22	.050-.115	.010	PRE-TINNED PHOS. BR.	.156	.165	.350	.075	
12094-3	26-22	.050-.115	.010	PHOSPHOR BRONZE	.156	.165	.350	.075	Finish—Gold Flash

## Connectors ... wire crimp with insulation support



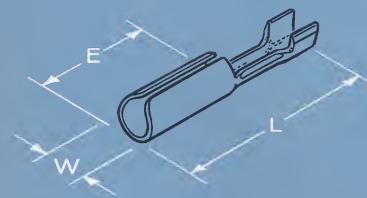
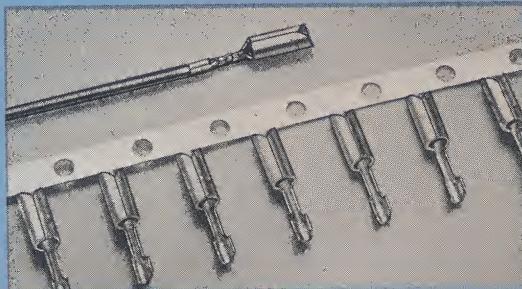
SCALE: 2 to 1

Part Number	Wire Range	Insulation O.D. Range	Stock Thicks.	Material	Nominal			Remarks
					E	L	W	
12052-0	27-24	.040—.060	.0135	PRE-TINNED BRASS	.250	.531	.125	{ Used with Malco 12027-0 or 12027-1 (See page PT-6)
12054-0	24-18	.050—.115	.010	PRE-TINNED BRASS	.188	.531	.125	



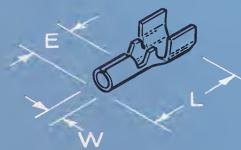
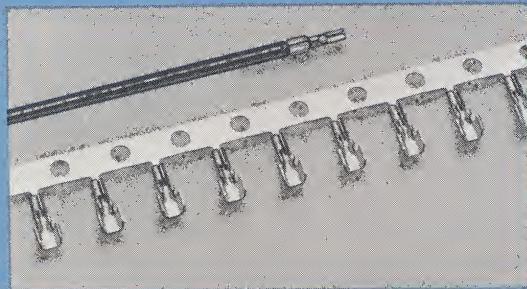
## Male and Female Connectors

### Connectors . . . wire crimp with insulation support



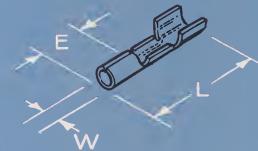
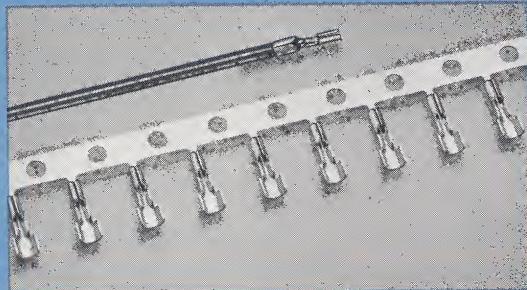
SCALE: 2 to 1

Part Number	Wire Range	Insulation O.D. Range	Stock Thicks.	Material	For Pin Dia.	Use With Sleeve No.	Nominal			Remarks
							W	E	L	
12303-2	24-27	.040-.060	.010	PRE-TINNED BRASS	.109	29075-10	.125	.308	.625	{ Used with Malco 11001-1 Group or 12222-2 Group (See pages PT-6 and PT-27)
12313-2	20-24	.060-.099	.010	PRE-TINNED BRASS	.109	29075-10	.125	.308	.625	
12323-2	16-20	.100-.130	.010	PRE-TINNED BRASS	.109	29075-10	.125	.308	.625	
12333-2	20-24	.040-.060	.010	PRE-TINNED BRASS	.109	29075-10	.125	.308	.625	
12302-2	24-27	.040-.060	.010	PRE-TINNED BRASS	.093	29074-10	.109	.308	.625	{ Used with Malco 11A044-1 Group or 12303-2 Group (See pages PT-9 and PT-27)
12312-2	20-24	.060-.099	.010	PRE-TINNED BRASS	.093	29074-10	.109	.308	.625	
12322-2	16-20	.100-.130	.010	PRE-TINNED BRASS	.093	29074-10	.109	.308	.625	

**Malco****Male and Female Connectors****Pin Receptacles** ... wire crimp with insulation support

SCALE: 2 to 1

Part Number	Wire Range Stranded	Insulation O.D. Range	Stock Thicks.	Material	For Pin Dia.	Nominal			Remarks
						E	L	W	
12080-0	19-34	.070-.078	.010	PRE-TINNED BRASS	.040	.093	.281	.060	

**Pin Receptacles** ... wire crimp with insulation support

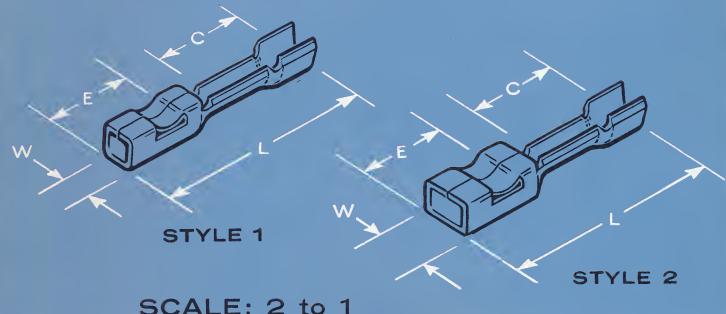
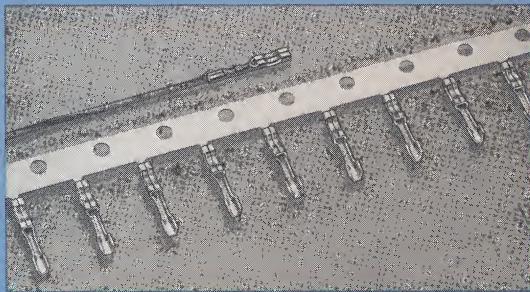
SCALE: 2 to 1

Part Number	Wire Range Stranded	Insulation O.D. Range	Stock Thicks.	Material	For Pin Dia.	Nominal			Remarks
						E	L	W	
12072-4	#24	.059-.061	.010	PRE-TINNED BRASS	.040	.109	.328	.060	



## Male and Female Connectors

### Wrapost Receptacles ... insulation support



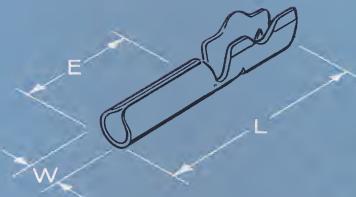
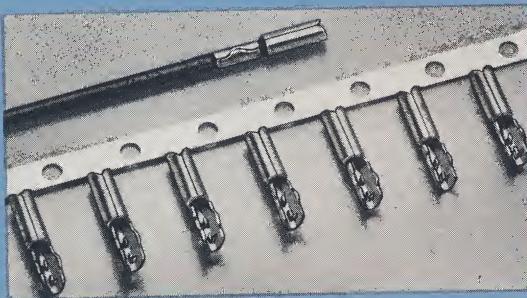
Part Number	Style	Wire Range	Insulation O.D. Range	Stock Thicks.	Material	Nominal				Remarks
						E	C	L	W	
12093-1	1	24-27	.040-.060	.010	BRASS	.218	.281	.533	.073	For .045 Square Wrapost Pin
12093-2		24-27	.040-.060	.010	PRE-TINNED BRASS	.218	.281	.533	.073	
12093-3		20-24	.060-.100	.010	BRASS	.218	.281	.533	.073	
12093-4		20-24	.060-.100	.010	PRE-TINNED BRASS	.218	.281	.533	.073	
12093-5		16-20	.100-.130	.010	BRASS	.218	.281	.533	.073	
12093-6		16-20	.100-.130	.010	PRE-TINNED BRASS	.218	.281	.533	.073	
12093-7		24-27	.040-.060	.010	PHOSPHOR BRONZE	.218	.281	.533	.073	
12093-8		24-27	.040-.060	.010	PRE-TINNED PHOS. BR.	.218	.281	.533	.073	
12093-9		20-24	.060-.100	.010	PHOSPHOR BRONZE	.218	.281	.533	.073	
12093-10		20-24	.060-.100	.010	PRE-TINNED PHOS. BR.	.218	.281	.533	.073	
12093-11		16-20	.100-.130	.010	PHOSPHOR BRONZE	.218	.281	.533	.073	
12093-12		16-20	.100-.130	.010	PRE-TINNED PHOS. BR.	.218	.281	.533	.073	

Part Number	Style	Wire Range	Insulation O.D. Range	Stock Thicks.	Material	Nominal				Remarks
						E	C	L	W	
12100-1	2	24-27	.040-.060	.010	BRASS	.218	.281	.533	.090	For .025 x .063 Wrapost Pin
12100-2		24-27	.040-.060	.010	PRE-TINNED BRASS	.218	.281	.533	.090	
12100-3		20-24	.060-.100	.010	BRASS	.218	.281	.533	.090	
12100-4		20-24	.060-.100	.010	PRE-TINNED BRASS	.218	.281	.533	.090	
12100-5		16-20	.100-.130	.010	BRASS	.218	.281	.533	.090	
12100-6		16-20	.100-.130	.010	PRE-TINNED BRASS	.218	.281	.533	.090	
12100-7		24-27	.040-.060	.010	PHOSPHOR BRONZE	.218	.281	.533	.090	
12100-8		24-27	.040-.060	.010	PRE-TINNED PHOS. BR.	.218	.281	.533	.090	
12100-9		20-24	.060-.100	.010	PHOSPHOR BRONZE	.218	.281	.533	.090	
12100-10		20-24	.060-.100	.010	PRE-TINNED PHOS. BR.	.218	.281	.533	.090	
12100-11		16-20	.100-.130	.010	PHOSPHOR BRONZE	.218	.281	.533	.090	
12100-12		16-20	.100-.130	.010	PRE-TINNED PHOS. BR.	.218	.281	.533	.090	



# Male and Female Connectors

## Connectors ... insulation piercing



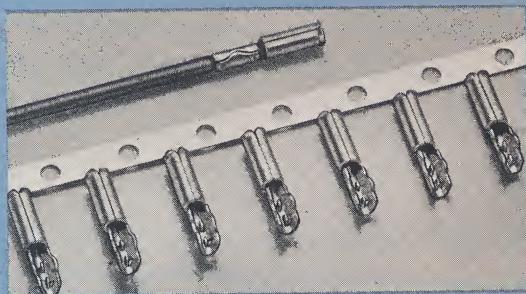
SCALE: 2 to 1

Part Number	Insulation O.D. Range	Stock Thicks.	Material	For Pin Dia.	Use With Sleeve No.	Nominal			Remarks
						W	E	L	
12102-2	.060-.080	.010	PRE-TINNED BRASS	.093	29069-10	.109	.308	.560	{ Used with Malco 11061-1 or 12303-2 Group (See pages PT-9 and PT-28)
12112-2	.080-.099	.010	PRE-TINNED BRASS	.093	29069-10	.109	.308	.560	
12103-2	.060-.080	.010	PRE-TINNED BRASS	.109	29069-10	.125	.308	.560	{ Used with Malco 11001-1 or 12027-2 (See pages PT-6 and PT-27)
12113-2	.080-.099	.010	PRE-TINNED BRASS	.109	29069-10	.125	.308	.560	



## Male and Female Connectors

### Pin Receptacles ... insulation piercing



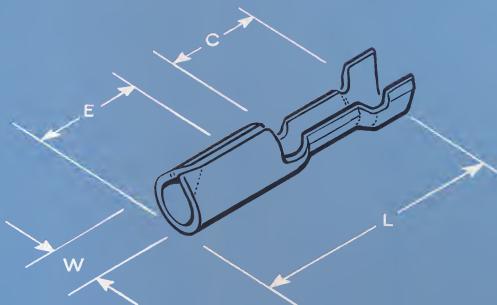
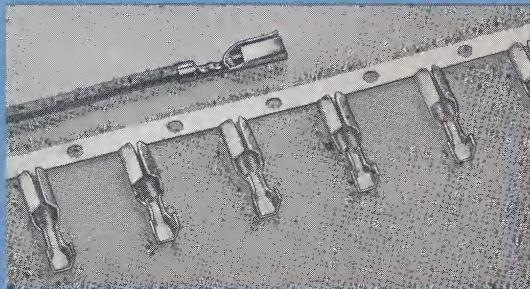
SCALE: 2 to 1

Part Number	Insulation O.D. Range	Stock Thicks.	Material	For Pin Dia.	Use With Sleeve No.	Nominal			Remarks
						W	E	L	
12201-1	.060-.080	.0126	BRASS	.093	29069-10	.116	.308	.560	Used with Malco 11061-1 Group (See page PT-28)
12201-2	.060-.080	.0126	PRE-TINNED BRASS	.093	29069-10	.116	.308	.560	
12211-2	.080-.100	.0126	PRE-TINNED BRASS	.093	29069-10	.116	.308	.560	
12202-2	.060-.080	.0126	PRE-TINNED BRASS	.109	29069-10	.132	.308	.560	Used with Malco 11004-1 Group (See page PT-27)
12212-2	.080-.100	.0126	PRE-TINNED BRASS	.109	29069-10	.132	.308	.560	



# Male and Female Connectors

## Pin Receptacles ... insulation support



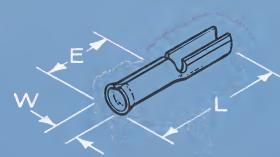
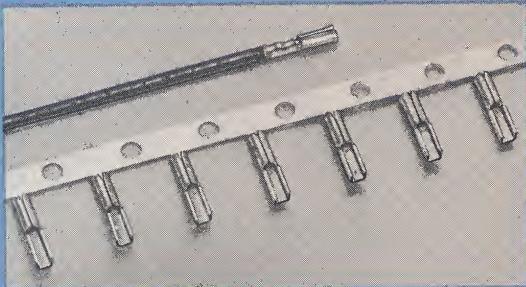
SCALE: 2 to 1

Part Number	Wire Range	Insulation O.D. Range	Stock Thcks.	Material	For Pin Dia.	Nominal				Remarks
						C	E	L	W	
12226-1	24-27	.040-.059	.0126	BRASS	.156	.275	.281	.671	.188	
12226-2	24-27	.040-.059	.0126	PRE-TINNED BRASS	.156	.275	.281	.671	.188	
12236-1	20-24	.060-.099	.0126	BRASS	.156	.275	.281	.671	.188	
12236-2	20-24	.060-.099	.0126	PRE-TINNED BRASS	.156	.275	.281	.671	.188	
12246-1	16-20	.100-.130	.0126	BRASS	.156	.275	.281	.671	.188	
12246-2	16-20	.100-.130	.0126	PRE-TINNED BRASS	.156	.275	.281	.671	.188	



## Male and Female Connectors

### Pin Receptacles ... wire crimp



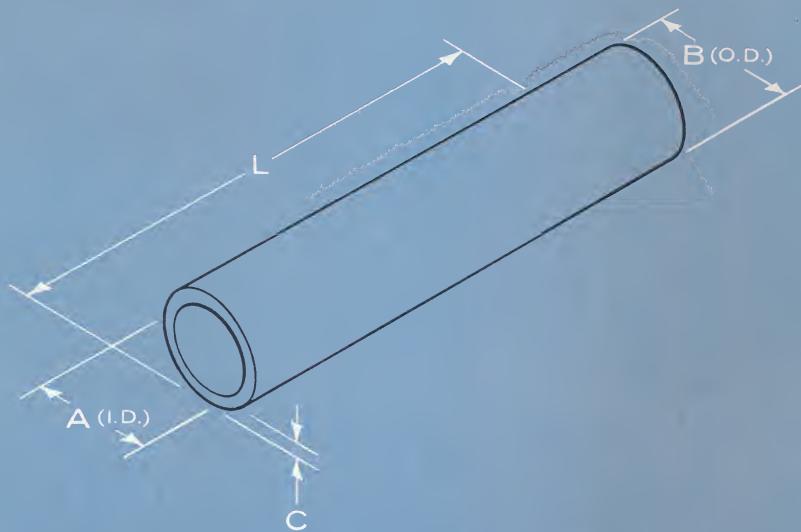
SCALE: 2 to 1

Part Number	Wire Range	Stock Thck.	Material	For Pin Dia.	Nominal			Remarks
					E	L	W	
12021-5	24-18	.010	PRE-TINNED BRASS	.065	.188	.375	.080	{ Used with Malco 13041-0 Group (See page PT-23)
12021-14	24-18	.010	PRE-TINNED PHOS. BRONZE	.062	.188	.375	.078	



# Insulating Sleeves

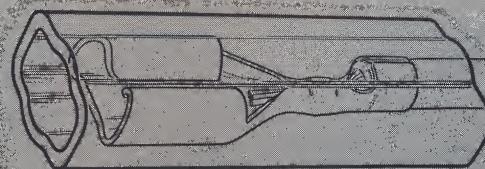
Made of Super High Impact  
Polyvinyl Chloride—  
Non-inflammable



Part Number	A	B	C	L	Color
29069-10	$\frac{3}{16}$ "	.....	$\frac{1}{32}$ "	$3\frac{1}{32}$ "	Natural*
29074-10	.213"	.....	$\frac{1}{32}$ "	$6\frac{1}{64}$ "	Blue*
29075-10	.....	.204"	$\frac{1}{32}$ "	$6\frac{1}{64}$ "	Blue*

\*Other colors available on special order.

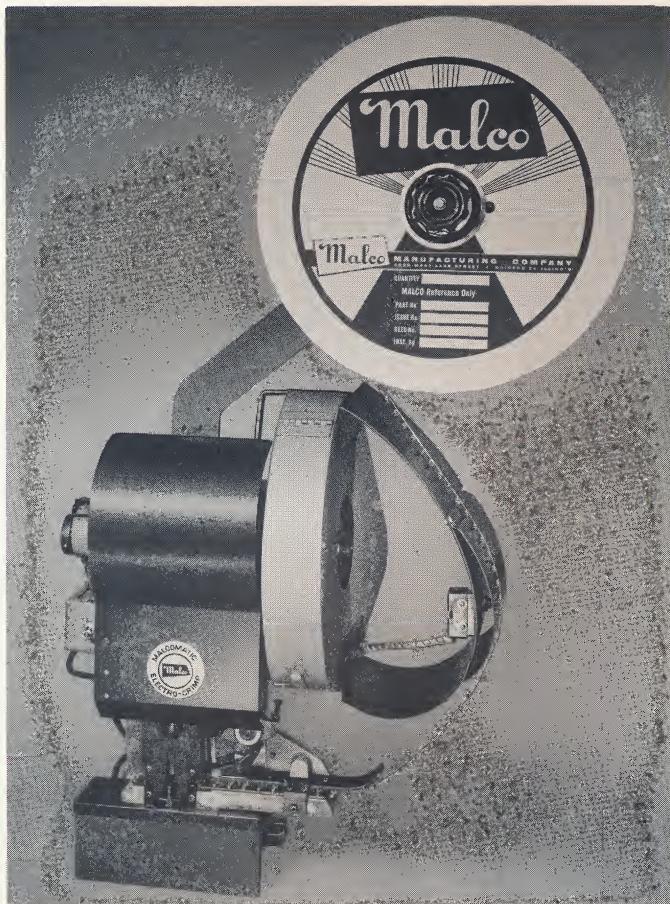
**MALCO TABON TERMINALS  
ARE ALSO AVAILABLE WITH  
INSULATING SLEEVES**



Request Bulletin No. 603

# Malcomatic® Electro-Crimp Machines

Malcomatic Electro-Crimp Machines are especially designed for high production requirements. They are suitable for bench mounting and especially adapted to new or existing production line setups. Skilled operators are not required.



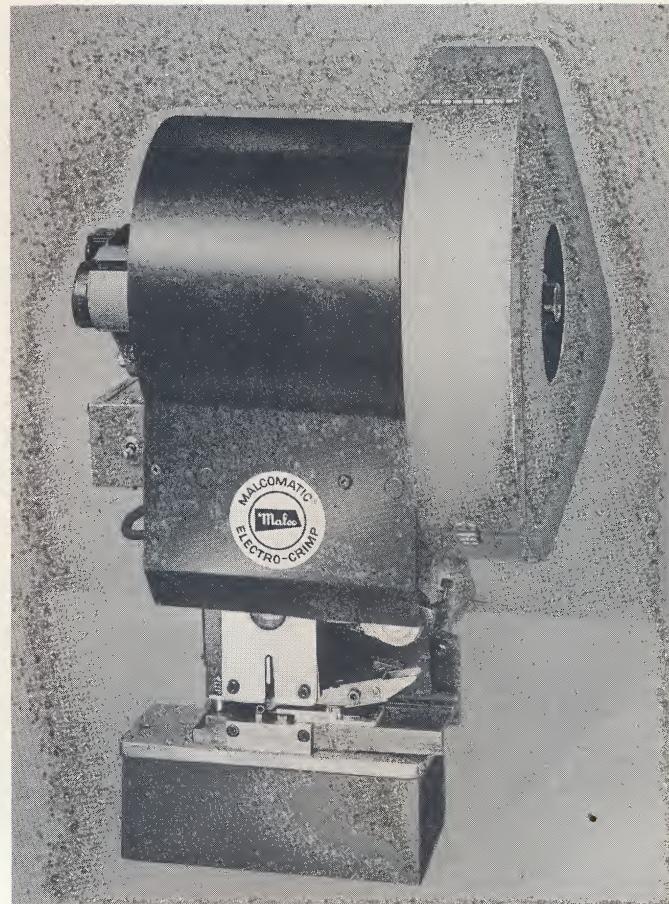
FOR CRIMPING MALCO RECEPTACLES

**Features:**

- High productivity
- Simple ram adjustment for variations in wire sizes
- Quick jaw and anvil changeovers
- Spare parts from stock

**Specifications:**

Weight: 125 lbs.      Width: 14 in.  
Height: 22 in.      Depth: 19 in.  
Power: 115v., 12 amp., 60 cycle



FOR CRIMPING INSULATING SLEEVES TO MALCO RECEPTACLES

**Features:**

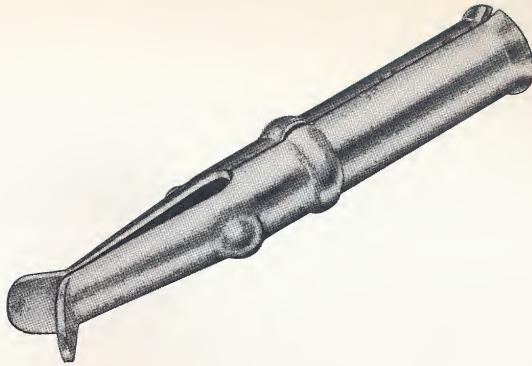
- High productivity
- Simple adjustment to vary dimension between end of sleeve and end of terminal
- Quick jaw and anvil changeovers
- Spare parts from stock

**Specifications:**

Weight: 150 lbs.      Width: 14 in.  
Height: 22 in.      Depth: 26 in.  
Power: 115v., 12 amp., 60 cycle

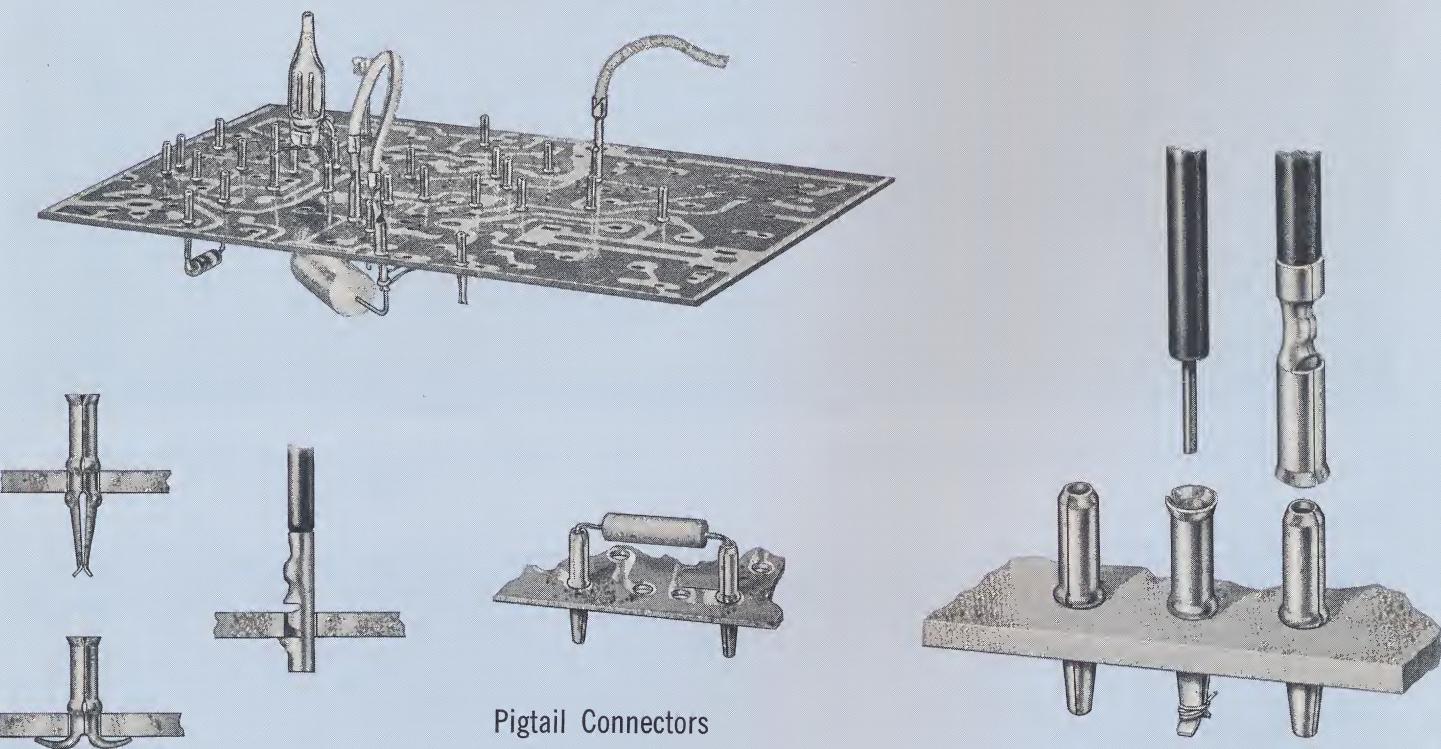
# Miniature Pin Terminals

## FEATURES



- Two beads on the body of terminal assure its snapping into panel with positive locking action—eliminates roll-over operations and possible fracturing of panel or chipping of plating
- Positive locking action retains the terminal until additional components are added and until it is permanently soldered
- Resistor, capacitor, transistors, neon pigtails, etc. can be fed into the terminal at either end and are held in place by tapered portions of the body until solder dipped
- Solder stop miniature pin terminals are designed to prevent solder flow through female receiving end
- External leads from other components, such as tuner, CRT socket, volume control and speaker, etc. can be wrapped around the terminals and spot soldered
- Available in wide variety of types adaptable to practically any component insertion requirement
- Furnished in chain form for automatic assembly

## APPLICATIONS



Pigtail Connectors

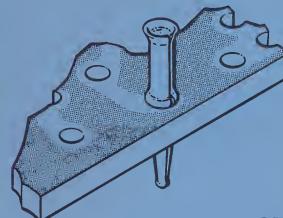
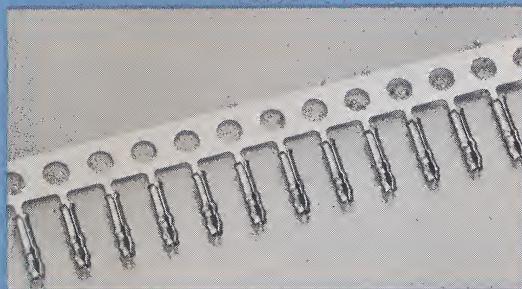
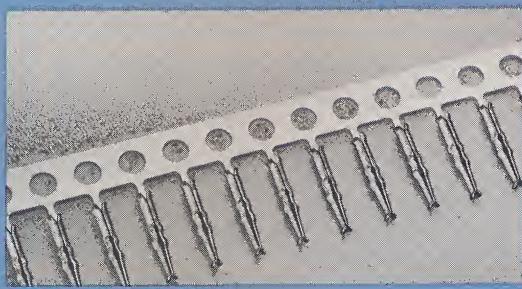
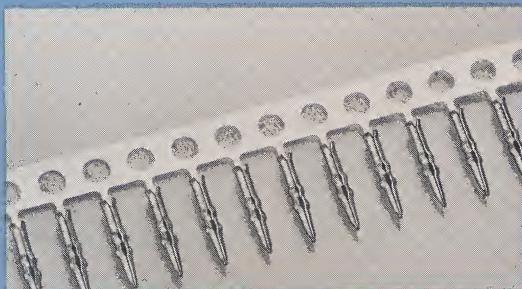
Male, Female and Wire Connectors  
for Printed Circuit Boards



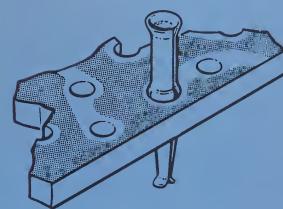
## Miniature Pin Terminals

### Miniature Tubular Terminals

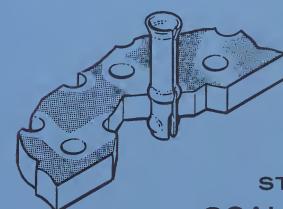
To hold securely in a  $\frac{.067}{.070}$  diameter hole in a  $\frac{1}{16}$ -inch thick board



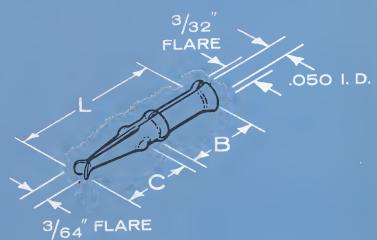
STYLE A  
SCALE: 2 to 1



STYLE B  
SCALE: 2 to 1



STYLE C  
SCALE: 2 to 1



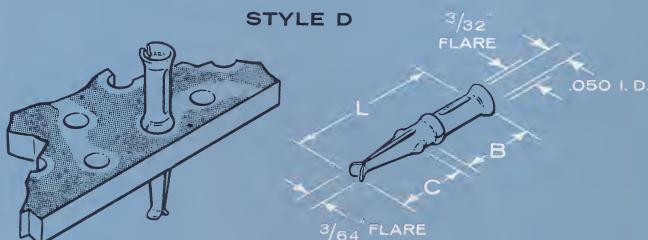
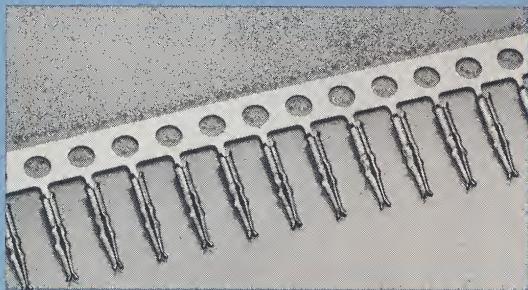
Part Number	Style	Stock Thicks.	Material	Nominal			Remarks
				L	B	C	
13009-0	A	.0063	PRE-TINNED BRASS	.468	.218	.188	
13009-1	B	.0063	PRE-TINNED BRASS	.468	.218	.188	
13009-2	A	.0071	PRE-TINNED PHOS. BRONZE	.468	.218	.188	
13009-3	B	.0071	PRE-TINNED PHOS. BRONZE	.468	.218	.188	
13009-5	C	.0063	PRE-TINNED BRASS	.327	.218	.047	
13009-12	A	.0063	PRE-TINNED BRASS	.468	.218	.188	{ To Hold .010 Dia. Wire, .045 Min. I.D. No Flared Mouth
13009-13	C	.0071	PRE-TINNED PHOS. BRONZE	.327	.218	.047	



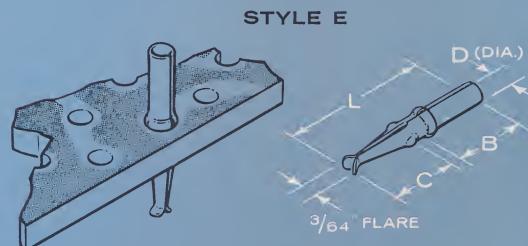
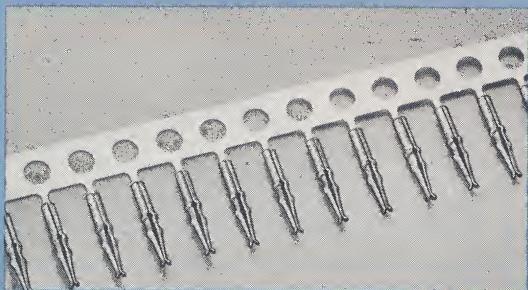
# Miniature Pin Terminals

## Miniature Tubular Terminals

To hold securely in a  $\frac{.067}{.070}$  diameter hole in a  $\frac{1}{16}$ -inch thick board



SCALE: 2 to 1



SCALE: 2 to 1

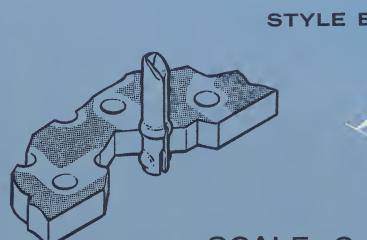
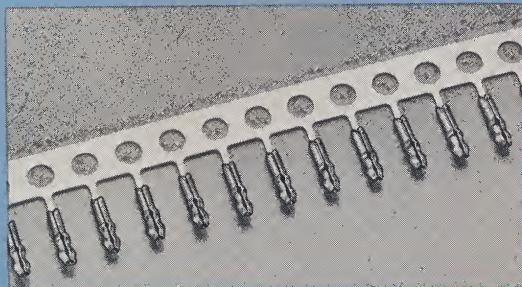
Part Number	Style	Stock Thicks.	Material	Nominal				Remarks
				L	B	C	D	
13009-9	D	.007	PRE-TINNED PHOS. BRONZE	.468	.218	.188	.065	Fit For .039 Dia. Pin
13009-11	E	.0063	PRE-TINNED BRASS	.468	.218	.188	.065	No Flared Mouth Min. I.D. .045



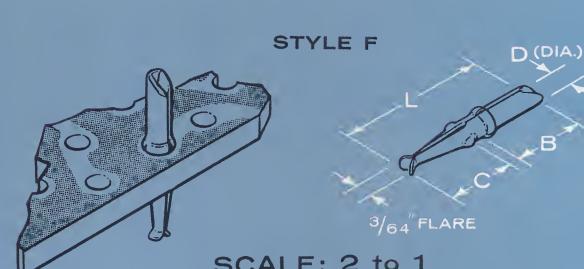
## Miniature Pin Terminals

### Miniature Tubular Terminals

To hold securely in a  $\frac{.067}{.070}$  diameter hole in a  $\frac{1}{16}$ -inch thick board



SCALE: 2 to 1

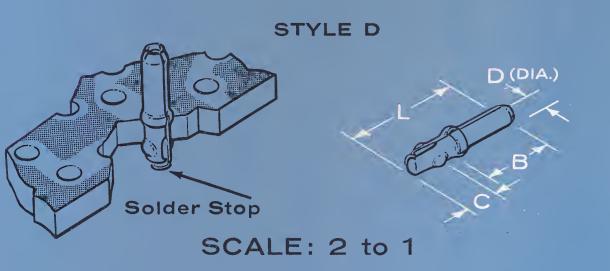
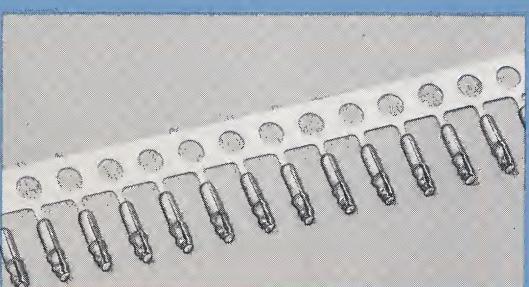
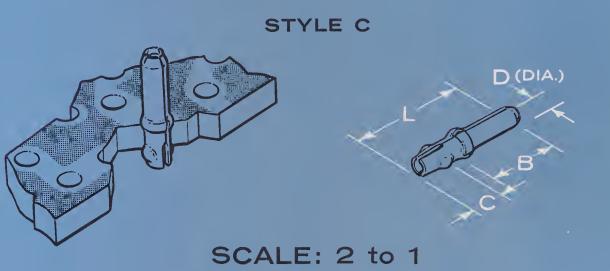
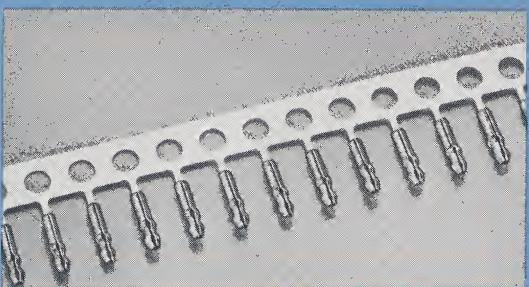
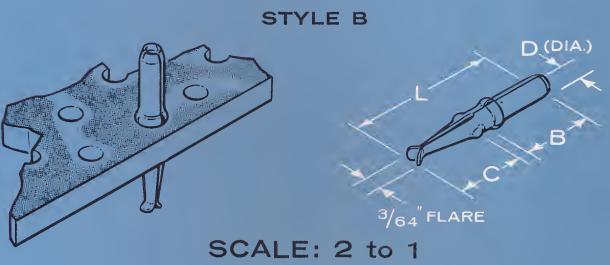
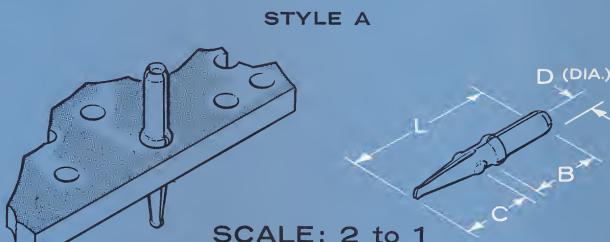
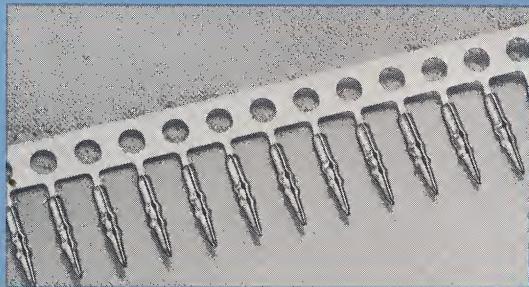


SCALE: 2 to 1

Part Number	Style	Stock Thicks.	Material	Nominal				Remarks
				L	B	C	D	
13041-9	E	.007	PRE-TINNED PHOS. BRONZE	.327	.218	.047	.065	Used with Malco 12021-0 or 12047-0 Group (See Page PT-5)
13041-10	F	.0063	PRE-TINNED BRASS	.468	.218	.188	.065	

**Miniature Tubular Terminals**

To hold securely in a  $\frac{.067}{.070}$  diameter hole in a  $\frac{1}{16}$ -inch thick board





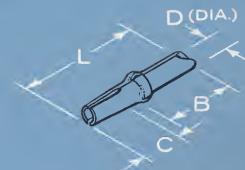
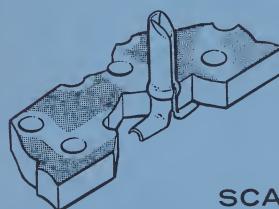
## Miniature Pin Terminals

Part Number	Style	Stock Thcks.	Material	Nominal				Remarks
				L	B	C	D	
13041-0	A	.0063	PRE-TINNED BRASS	.468	.218	.188	.065	
13041-1	B	.0063	PRE-TINNED BRASS	.468	.218	.188	.065	
13041-2	A	.007	PRE-TINNED PHOS. BRONZE	.468	.218	.188	.065	
13041-3	C	.0063	PRE-TINNED BRASS	.327	.218	.047	.065	
13041-5	A	.0063	BRASS	.468	.218	.188	.065	
13041-6	A	.007	PHOS. BRONZE	.468	.218	.188	.065	
13041-7	C	.007	PRE-TINNED PHOS. BRONZE	.327	.218	.047	.065	
13041-7W	D	.007	PRE-TINNED PHOS. BRONZE	.343	.218	.063	.065	

Used with Malco  
12021-0 or 12047-0 Group  
(See page PT-5)

**Malco****Miniature Pin Terminals****Miniature Tubular Terminals**

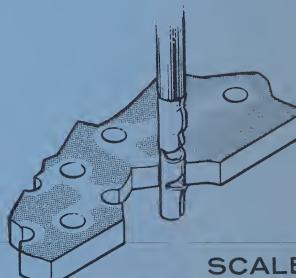
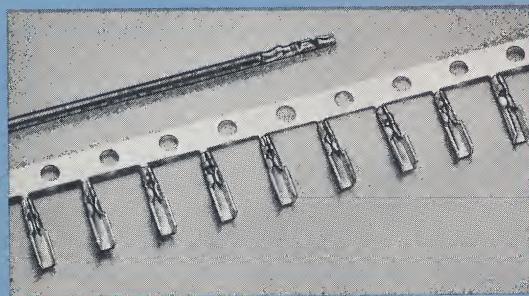
Note: Recommended mounting hole  $\frac{.073}{.076}$  diameter



SCALE: 2 to 1

Pat. No. 2,877,441

Part Number	Stock Thcks.	Material	Nominal				Remarks
			L	B	C	D	
13041-14	.007	PRE-TINNED PHOS. BRONZE	.358	.218	.140	.065	{ For Use In $\frac{3}{32}$ Board.

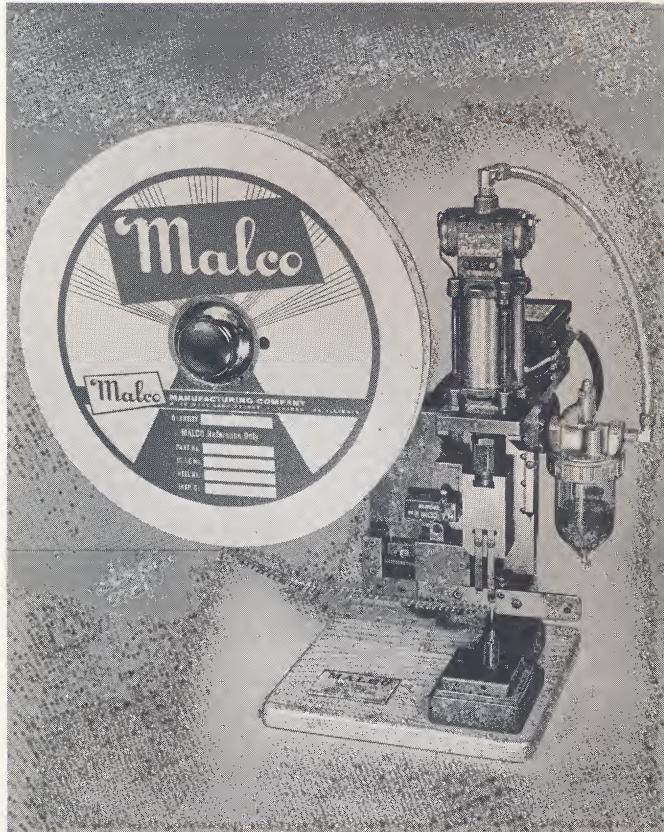
**Pin Receptacles**

SCALE: 2 to 1

Part Number	Wire Range	Stock Thcks.	Material	Nominal			Remarks
				E	L	W	
12089-1	18-22	.010	PRE-TINNED BRASS	.093	.375	.060	{ To Hold in a .070-.075 Dia. Hole in a $\frac{1}{16}$ Phenolic Board.

# Malcomatic® Miniature Pin Terminal Inserting Machines

Malcomatic Miniature Pin Terminal Inserting Machines greatly speed up assembly and cut production costs. Models are available for fully or semi-automatic operation, and are easily adapted to new or existing production line setups. Skilled operators are not required.



## FOR LIMITED OR CUSTOM-TYPE PRODUCTION ASSEMBLY

### Features:

- Semi-automatic
- Suitable for bench mounting
- Spare parts from stock

### Specifications:

Weight: 40 lbs. Power: 115v., 2 amp., 60 cycle  
Height: 22 in. Operating Air Pressure: 40 to 60 lbs.  
Width: 10 in. Line Air Pressure: 80 to 125 lbs.  
Depth: 10 in.



## FOR HIGH VOLUME ASSEMBLY OPERATIONS

### Features:

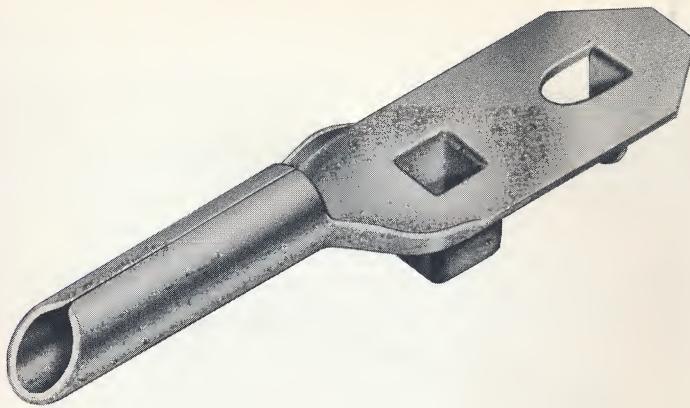
- Fully automatic
- Inserts up to 80 terminals simultaneously and in any symmetrical or nonsymmetrical pattern into a printed circuit board
- Spare parts from stock

### Specifications:

Weight: 550 lbs. Power: 115v., 5 amp., 60 cycle  
Height: 70 in. Operating Air Pressure: 70 to 80 lbs.  
Width: 43 in. Line Air Pressure: 80 to 125 lbs.  
Depth: 19 in.

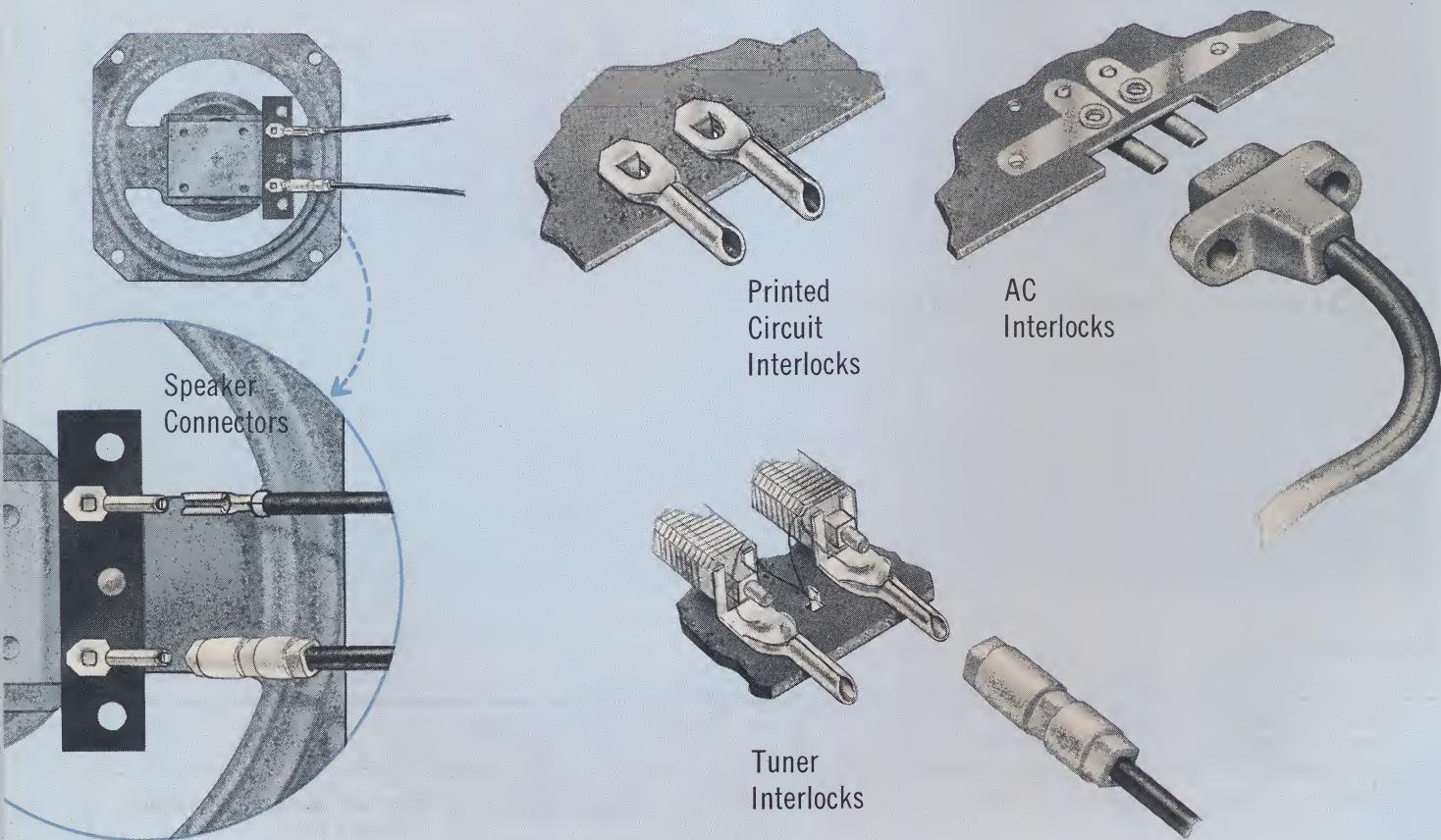
# Interlock Connectors

## FEATURES



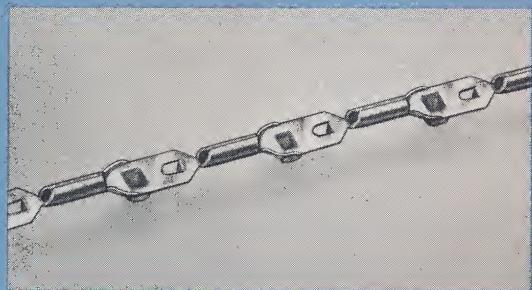
- Furnished in chain form for automatic lugging
- Ideally suited for connecting speaker leads, AC interlock, interlocking printed circuit boards or flybacks and as mounting lugs on transformers and tuner leads for printed circuit applications

## APPLICATIONS

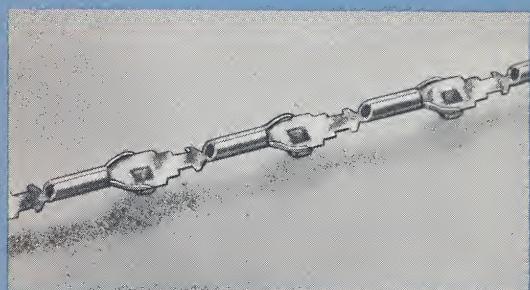




## Interlock Connectors

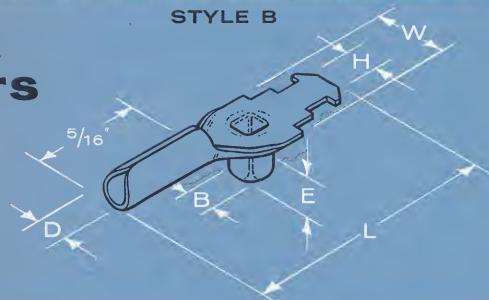
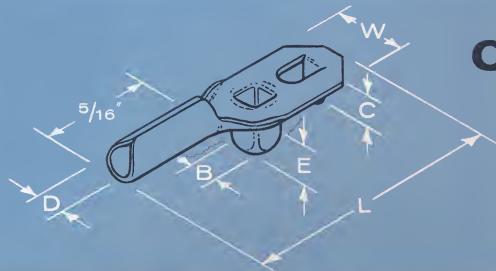


STYLE A



STYLE B

### Interlock Connectors

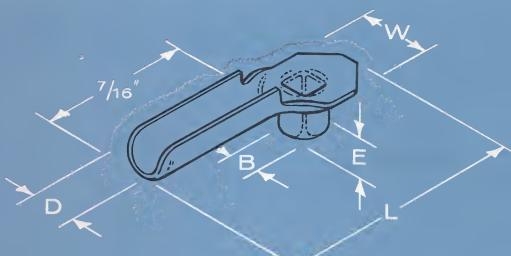
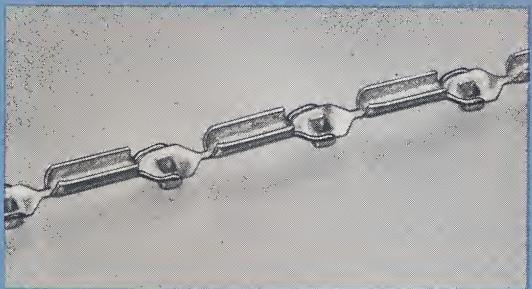


SCALE: 2 to 1

Part Number	Stock Thicks.	Material	Style	Nominal							Remarks
				C	W	D	L	E	B	H	
11001-1	.018	TINNED BRASS	A	.125	.218	.109	.800	.125	.115 Sq.		
11001-3	.018	TINNED BRASS	A	.125	.218	.109	.800	.156	.125 Dia.		
11018-0	.018	TINNED BRASS	B		.218	.109	.800	.125	.115 Sq.	.156	

} Used with Malco 12027-2  
(See page PT-6)

## Disconnect Terminals



SCALE: 2 to 1

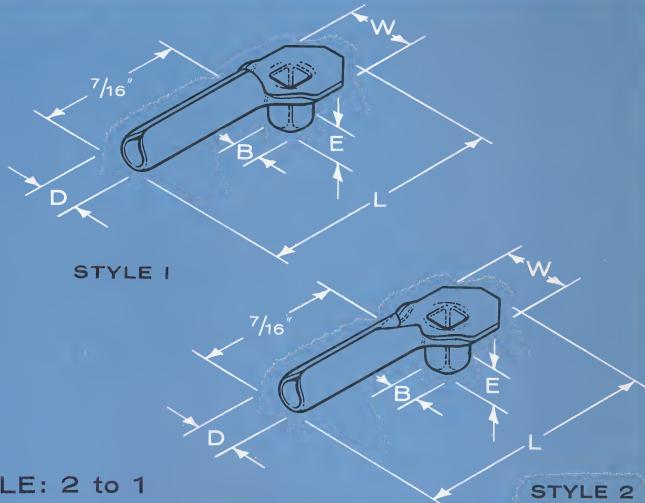
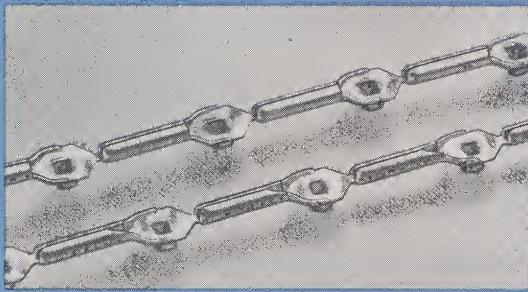
Part Number	Stock Thicks.	Material	Nominal					Remarks
			D	W	L	E	B	
11048-3	.018	TINNED BRASS	.156	.218	.707	.125	.115 Sq.	

} Used with Malco 12225-1 Group.  
(See page PT-7)



# Interlock Connectors

## Interlock Connectors



SCALE: 2 to 1

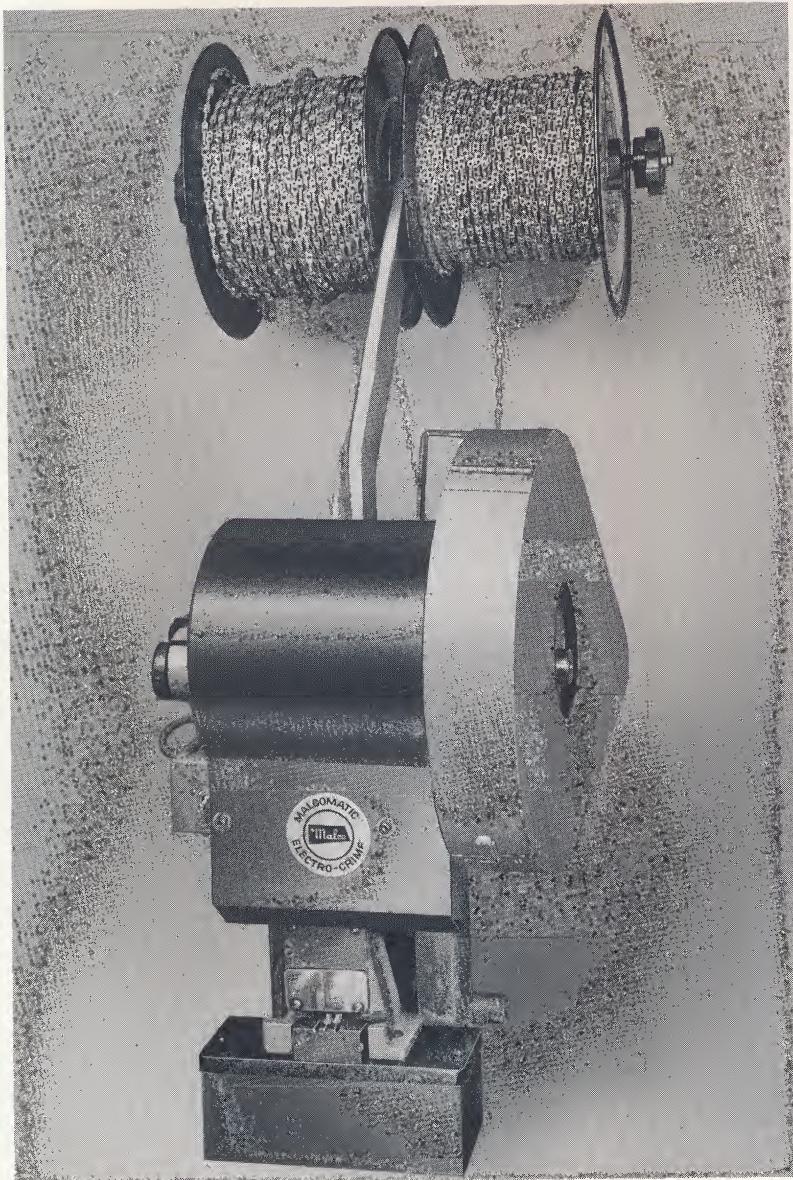
Part Number	Stock Thicks.	Style	Material	Nominal					Remarks
				W	D	L	E	B	
11049-1	.018	1	TINNED BRASS	.218	.109	.800	.125	.115 Sq.	{ Open Barrel Used with Malco 12027-2 (See page PT-6)}
11049-3	.018	1	TINNED BRASS	.218	.109	.800	.125	.109 Sq.	{ Closed Barrel Used with Malco 12027-2 (See page PT-6)}
11049-4	.018	2	TINNED BRASS	.218	.109	.800	.125	.115 Sq.	
11049-5	.018	2	TINNED BRASS	.218	.109	.800	.125	.109 Sq.	
11049-6	.018	2	PRE-TINNED BRASS	.218	.109	.800	.125	.115 Sq.	
11049-7	.018	2	PRE-TINNED BRASS	.218	.109	.800	.125	.109 Sq.	

Part Number	Stock Thicks.	Style	Material	Nominal					Remarks
				W	D	L	E	B	
11061-1	.018	2	TINNED BRASS	.218	.093	.800	.125	.115 Sq.	{ Closed Barrel Use with Malco 12027-3 (See page PT-6)}
11061-2	.018	2	TINNED BRASS	.218	.093	.800	.125	.109 Sq.	
11061-3	.018	2	PRE-TINNED BRASS	.218	.093	.800	.125	.115 Sq.	
11061-4	.018	2	PRE-TINNED BRASS	.218	.093	.800	.125	.109 Sq.	
11061-5	.018	2	BRASS	.218	.093	.800	.125	.115 Sq.	
11061-6	.018	2	BRASS	.218	.093	.800	.125	.109 Sq.	

# Malcomatic® Lugging Machine

for applying Malco interlock  
connectors in chain form

The Malcomatic Lugging Machine is especially designed for speed and economy on either large or small assembly operations. It is suitable for bench mounting and is easily adapted to new or existing production line setups. Skilled operators are not required.



#### Features:

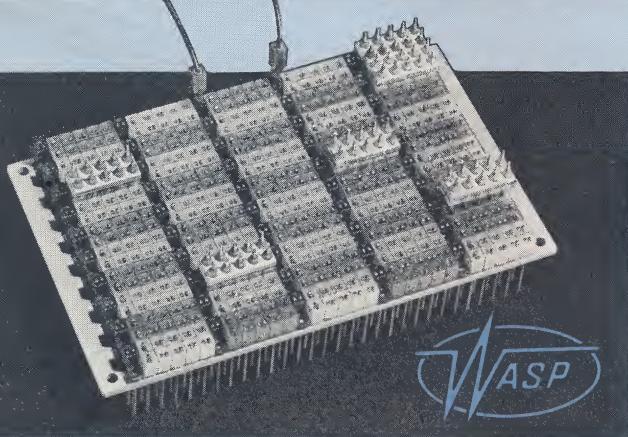
- Easy, quick changeover for varying board sizes
- Terminals fed in tandem, singly or in multiples at each stroke of the machine
- Printed circuit boards are manually located over the terminals and guided by adjustable rails and locators prior to mechanical crimping of the terminals
- Spare parts available from stock

#### Specifications:

Weight: 125 lbs.  
Height: 22 in.  
Width: 14 in.  
Depth: 19 in.  
Power: 115v., 12 amp., 60 cycle

# malco®

- Specialized high production techniques afford lowest possible unit cost.
- Precision tooling and rigid quality control assure tolerances to critical specifications.
- Prompt delivery on over 1000 different parts.
- Most complete line of circuit hardware and small stampings available for Radio-TV, electrical/electronic, communication, automotive and aviation industries.



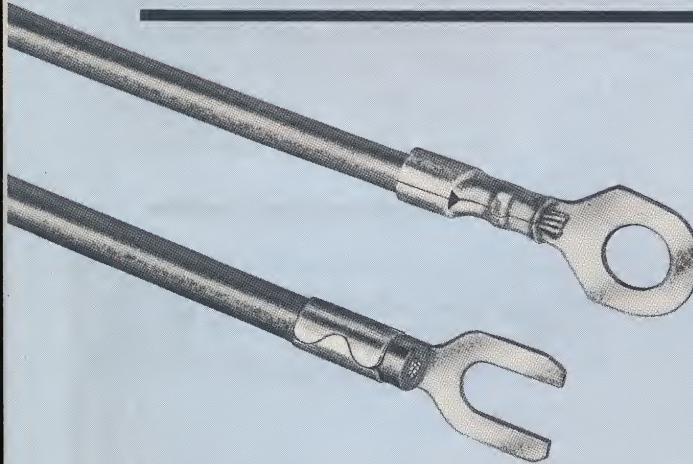
## WASP\* CONNECTORS

Available in custom designed "mother" boards—an aluminum matrix—and in a variety of associated components. Some of these are:

Programmed cable connectors  
Printed circuit board headers  
Module bases  
Direct entry card receptacles

**REQUEST BULLETIN NO. 631**

\*Wrapost Aluminum Systems Panel



## SPADE and RING TERMINALS

Supplied in chain form for rapid machine application. Accommodate wide range of wire and insulation sizes. Available with insulation support, without insulation support or with insulation pierce.

**REQUEST BULLETIN 605**



## SOLDERLESS TERMINALS

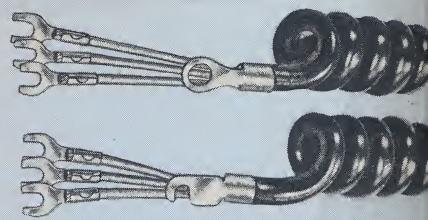
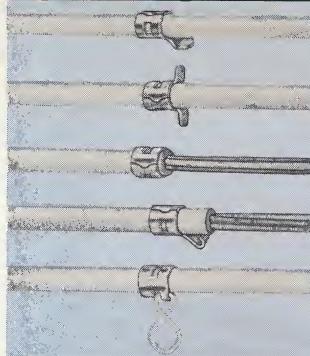
Supplied with insulated or non-insulated barrel. Made of pure soft copper for high conductivity and electro-tin plated for maximum corrosion resistance. Constructed in one piece for economy and strength. Wire ranges clearly marked on all terminals.

**REQUEST BULLETIN 617**

## **CORD CLAMPS**

For all strain relief and anti-fray applications. Prevent cord pull damage and unraveling. In chain form for fast automatic crimping. All Malco Cord Clamps can be attached with one machine.

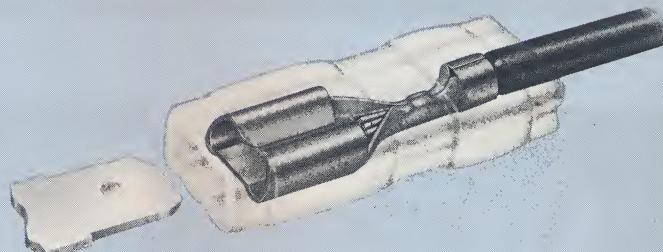
**REQUEST BULLETIN 604**



## **TABON TERMINALS and INSULATING SLEEVES**

For quick connect/disconnect applications. Terminals in chain style for rapid assembly with Malcomatic Electro-Crimp Machine. Exclusive Malco design eliminates faulty connections and assures uniform crimping.

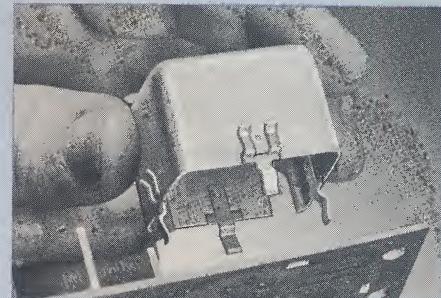
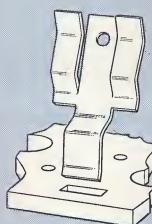
**REQUEST BULLETIN 603**



## **SPRING CLIPS**

Available in chain form for attaching to shielding cans—easily, quickly and economically.

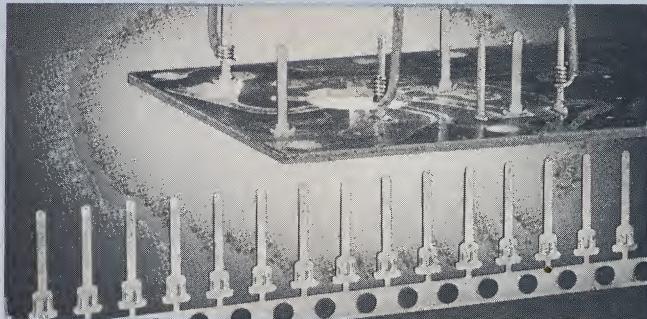
**REQUEST BULLETIN 602**



## **WRAP-A-WIRE TERMINALS**

Terminals feature an exclusive staked clinch-type design which holds the individual terminal firmly in the printed circuit board during additional assembly operations and until permanently soldered.

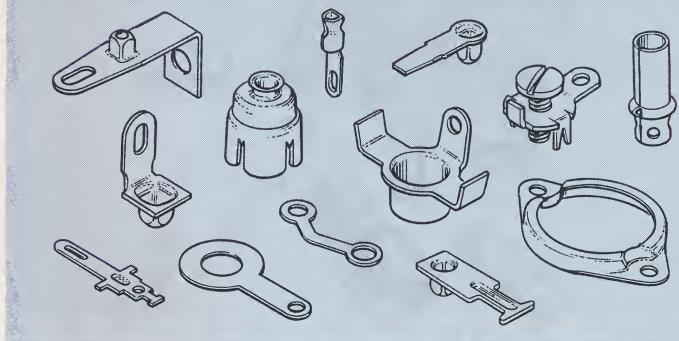
**REQUEST BULLETIN 608**



## **LUGS, TERMINALS and STAMPINGS**

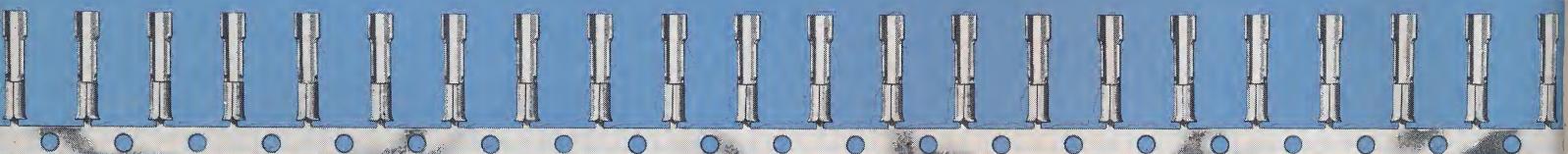
Parts illustrated are representative of many standard items available from stock in any quantity desired. (For detailed isometrics and specification drawings write for catalog.)

**REQUEST CATALOG No. 10**





malco®



Malco Products Are Covered by One or More of the Following U.S. and Corresponding Foreign Patents and Other Patent Applications Pending

2,674,724	2,811,702	2,814,024	2,814,802	2,871,551	2,877,441	2,914,745	2,983,898	3,067,902	3,072,880	3,070,772
2,995,617	3,002,654	3,002,669	3,004,581	3,030,603	3,044,040	3,060,402	3,063,139	3,077,027	3,071,844	3,086,074

PRINTED IN U.S.A.

**MALCO MANUFACTURING COMPANY**

4025 WEST LAKE STREET, CHICAGO, ILLINOIS 60624—VAn Buren 6-9300

SOLDER LUGS • PRINTED CIRCUIT HARDWARE • CONNECTORS • WRAP-A-WIRE TERMINALS

Bulletin No. 618-B

malco



CONNECTORS

A NEW  
MODULAR  
ELECTRONIC  
PACKAGING  
CONCEPT

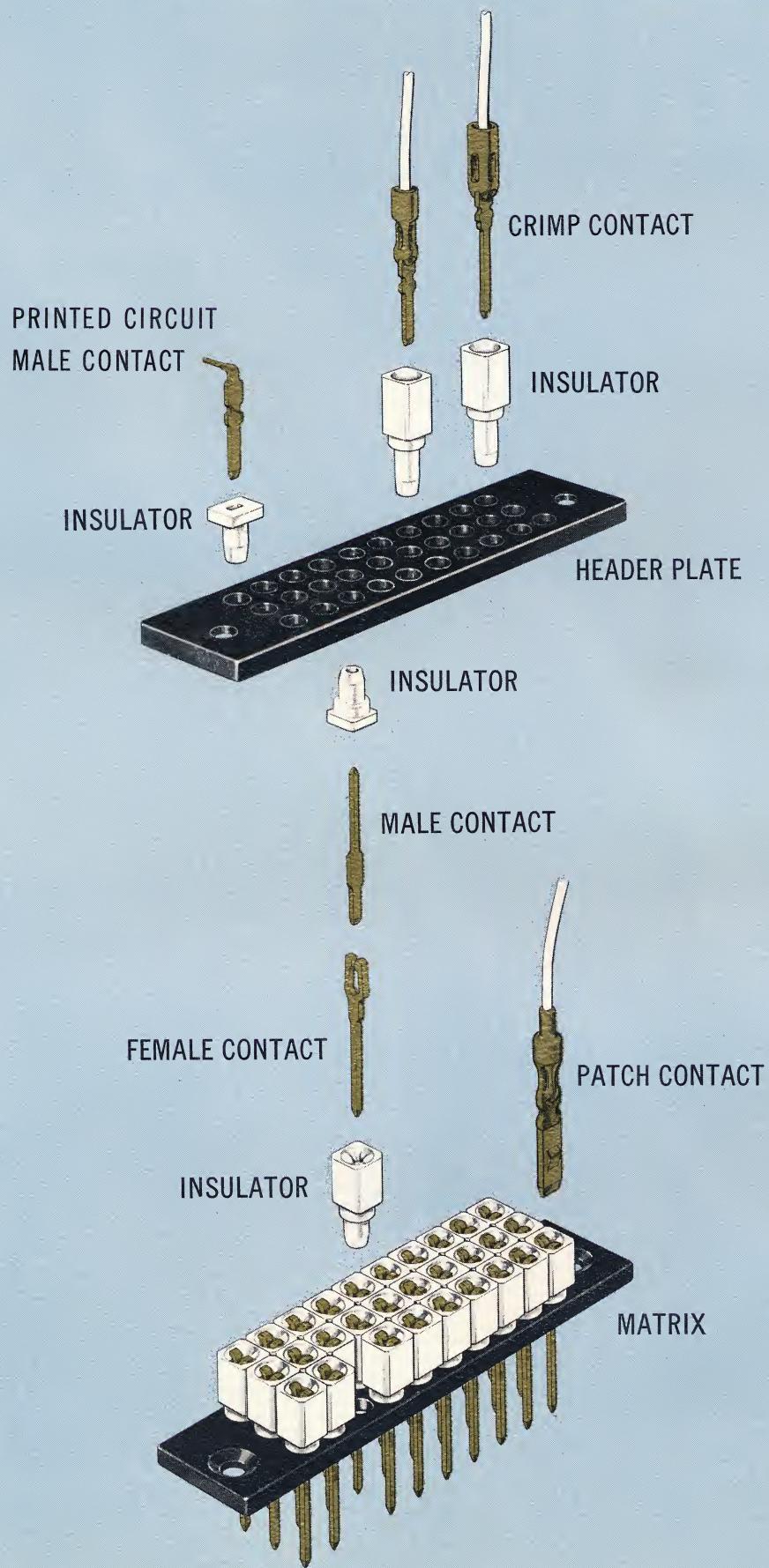
MALCO MANUFACTURING COMPANY, INC.

4025 W. LAKE ST., CHICAGO, ILLINOIS 60624 • Phone: Area Code 312, VAn Buren 6-9300

ELECTRONIC HARDWARE  
 CONNECTORS



THE ORIGINAL  
SELF-LOCKING CONNECTOR SYSTEM



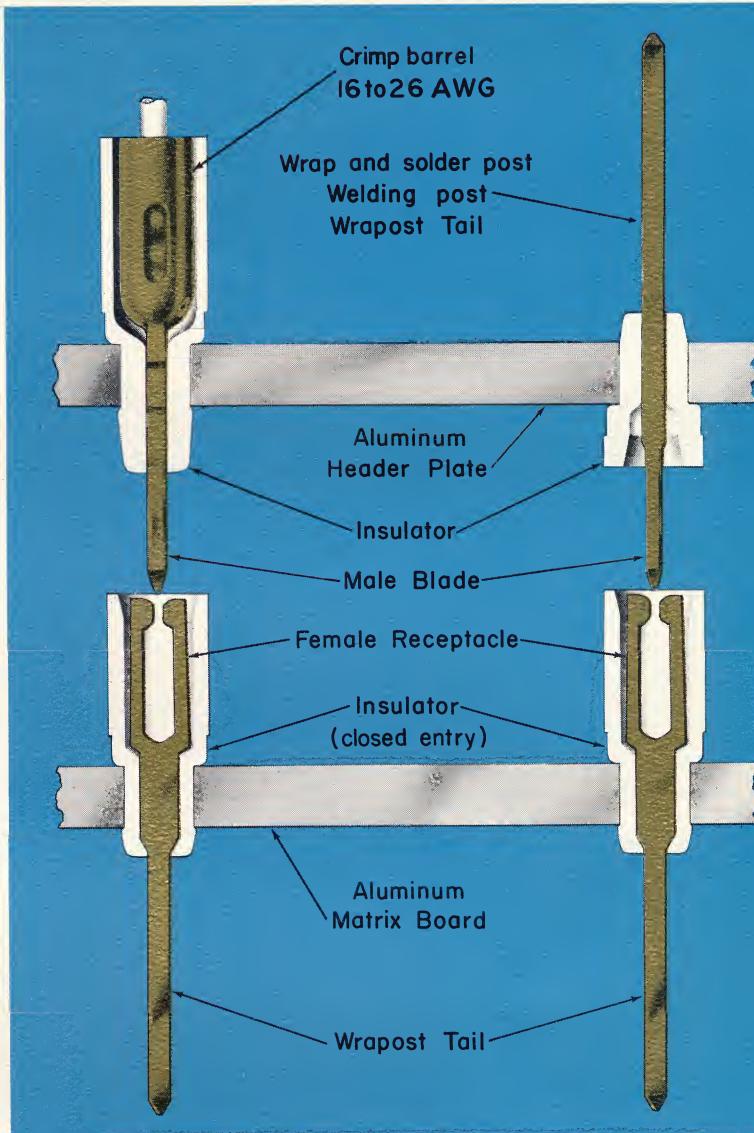
## FEATURES AND CHARACTERISTICS

- The Wasp System offers a one-piece, high reliability wrapost panel with the exact number of contacts you require and arranged to suit your design specifications.

- Variations in group patterns are unlimited and changes can be made manually with inexpensive removal and insertion tools. Configuration of the panel can be a 24" x 24" square or simply a one row strip. It may include cutouts, mounting holes, datum holes, markings and your choice of peripheral configuration.

- The versatility of the WASP concept allows a "complete package" to be designed for your requirements. It is presently in use in many of our country's most important missile, guidance and space programs.

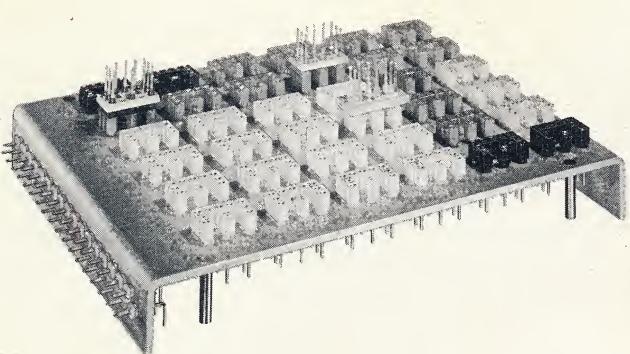
**FOR FURTHER INFORMATION  
REQUEST BULLETIN 631.**



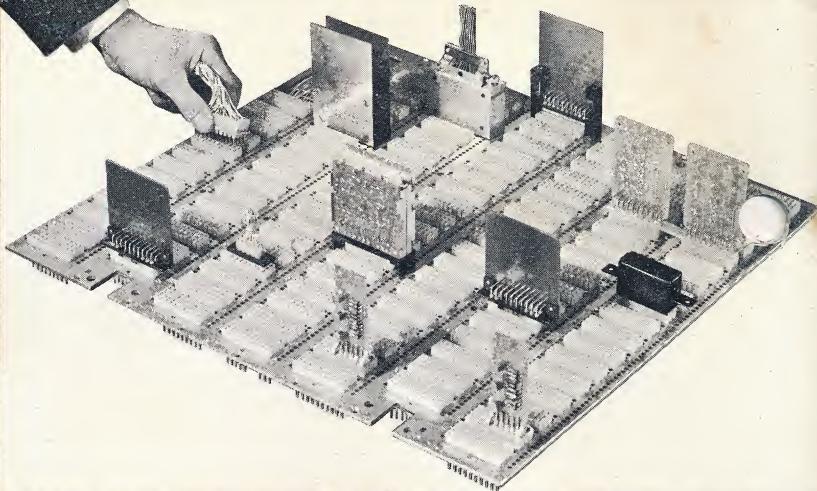
### ELECTRICAL SPECIFICATIONS

#### PER CONNECTION

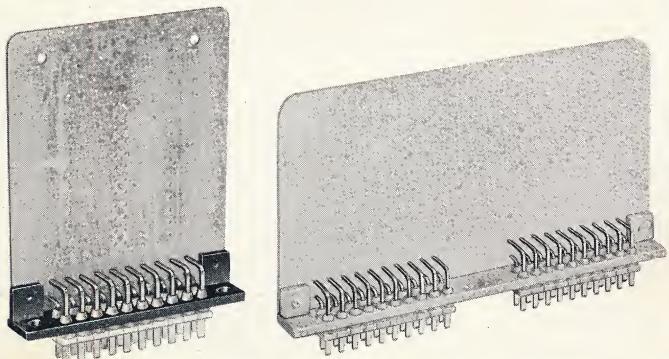
Current Rating.....	5 amps., A.C. or D.C.
Working Voltage.....	800 V.A.C.
Breakdown Voltage.....	approx. 3 KV.
Contact Resistance .....	below .002 ohm
Insulation Resistance.....	1,000,000 megohms
Operating Temperature....	max. continuous 95° C.
Dry Circuitry.....	0.1 microvolt at 10 milliamperes



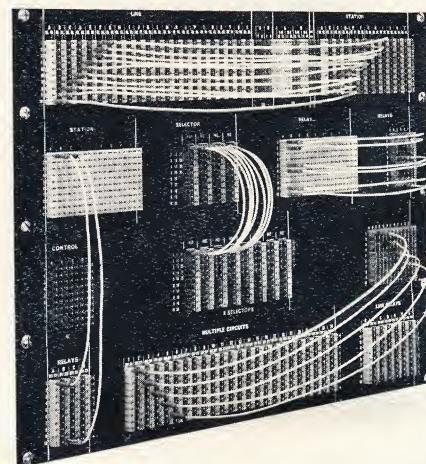
**1. PLUG-IN MODULES**  
Multiplex Type



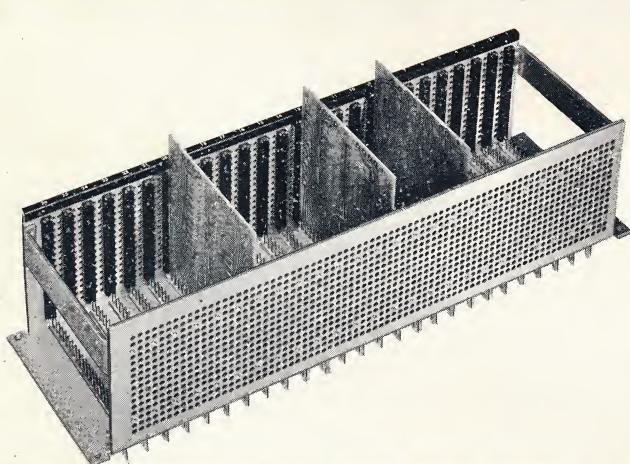
**2. RECEPTACLE PANEL**



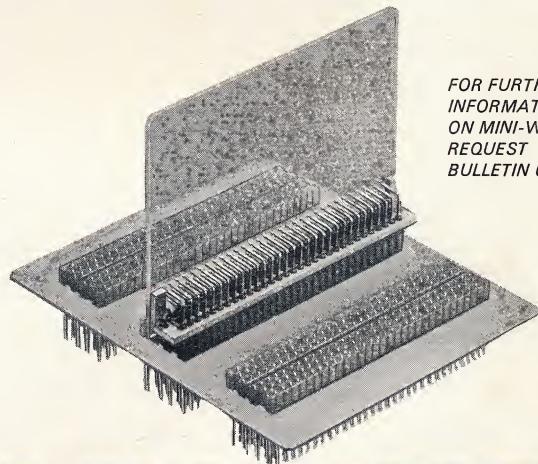
**3. PRINTED CIRCUIT BOARD HEADERS**  
Single and Double



**4. PATCH BOARD AND  
PATCH CORD TERMINALS**



**5. CARD CAGES**



FOR FURTHER  
INFORMATION  
ON MINI-WASP  
REQUEST  
BULLETIN 647

**6. MINI-WASP  
MINIATURE CONNECTORS**

**MALCO MANUFACTURING COMPANY, INC.**

4025 W. LAKE ST., CHICAGO, ILLINOIS 60624 • Phone: Area Code 312, VAn Buren 6-9300

ELECTRONIC HARDWARE  
**WASP** CONNECTORS

Malco Products Are Covered by One or More of the Following U.S. and Corresponding Foreign Patents and Other Patent Applications Pending

2,674,724	2,811,702	2,814,024	2,814,802	2,871,551	2,877,441	2,914,745	2,983,898	3,067,902	3,072,880	3,070,772
2,995,617	3,002,654	3,002,669	3,004,581	3,030,603	3,044,040	3,060,402	3,063,139	3,077,027	3,071,844	3,086,074

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Bulletin No. 617-A



Malco

# SOLDERLESS TERMINALS and CONNECTORS

MALCO MANUFACTURING COMPANY, INC.

4025 W. LAKE ST., CHICAGO, ILLINOIS 60624 • Phone: Area Code 312, VAn Buren 6-9300



**index****terminals**

	<i>non-insulated</i>	<i>insulated straight</i>	<i>insulated flared</i>
<i>hook tongue</i>			
<i>solderless tab</i>			
<i>rectangular tongue</i>			
<i>rectangular slotted tongue</i>			
<i>ring tongue</i>			
<i>spade tongue</i>			
<i>spade flanged tongue</i>			

## solderless terminals and connectors



### index connectors

	<i>non-insulated</i>	<i>insulated straight</i>	<i>insulated flared</i>
<i>butt connectors</i>			
	page SC-9	page SC-18	page SC-19
<i>parallel connectors</i>			
	page SC-9	page SC-18	page SC-19
<i>3-way "y" connectors</i>			
	page SC-10	page SC-20	page SC-21
<i>4-way "x" connectors</i>			
	page SC-10	page SC-20	page SC-21

### terminals



### ignition terminals





## part number index

### non-insulated

PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE
9000....SC-7	9015....SC-6	9054....SC-7	9109....SC-7	9306....SC-9					
9001....SC-7	9016....SC-6	9055....SC-7	9110....SC-7	9307....SC-9					
9002....SC-7	9017....SC-6	9056....SC-7	9154....SC-6	9308....SC-9					
9003....SC-8	9020....SC-7	9057....SC-8	9155....SC-6	9312....SC-9					
9004....SC-7	9021....SC-8	9058....SC-8	9156....SC-6	9318....SC-9					
9005....SC-8	9028....SC-7	9059....SC-8	9160....SC-6	9401....SC-10					
9006....SC-8	9029....SC-8	9060....SC-7	9161....SC-6	9402....SC-10					
9007....SC-8	9030....SC-8	9061....SC-7	9170....SC-6	9403....SC-10					
9008....SC-6	9031....SC-7	9102....SC-7	9171....SC-6	9404....SC-10					
9009....SC-6	9040....SC-6	9103....SC-7	9172....SC-6	9405....SC-10					
9010....SC-6	9041....SC-6	9104....SC-7	9180....SC-8	9406....SC-10					
9011....SC-7	9042....SC-6	9105....SC-8	9181....SC-8	9492....SC-11					
9012....SC-7	9045....SC-6	9106....SC-8	9200....SC-11	9494....SC-11					
9013....SC-7	9046....SC-6	9107....SC-8	9250....SC-11	9505....SC-8					
9014....SC-8	9047....SC-6	9108....SC-7	9300....SC-9						

### insulated

90000....SC-15	90140....SC-17	90460....SC-13	91060....SC-17	91810....SC-17
90001....SC-14	90141....SC-16	90461....SC-12	91061....SC-16	91811....SC-16
90010....SC-15	90150....SC-13	90470....SC-13	91070....SC-17	93000....SC-19
90011....SC-14	90151....SC-12	90471....SC-12	91071....SC-16	93001....SC-18
90020....SC-15	90160....SC-13	90540....SC-15	91080....SC-15	93060....SC-19
90021....SC-14	90161....SC-12	90541....SC-14	91081....SC-14	93061....SC-18
90030....SC-17	90170....SC-13	90550....SC-15	91090....SC-15	93070....SC-19
90031....SC-16	90171....SC-12	90551....SC-14	91091....SC-14	93071....SC-18
90040....SC-15	90200....SC-15	90560....SC-15	91100....SC-15	93080....SC-19
90041....SC-14	90201....SC-14	90561....SC-14	91101....SC-14	93081....SC-18
90050....SC-17	90210....SC-17	90570....SC-17	91540....SC-13	93120....SC-19
90051....SC-16	90211....SC-16	90571....SC-16	91541....SC-12	93121....SC-18
90060....SC-17	90280....SC-15	90580....SC-17	91550....SC-13	93180....SC-19
90061....SC-16	90281....SC-14	90581....SC-16	91551....SC-12	93181....SC-18
90070....SC-17	90290....SC-17	90590....SC-17	91560....SC-13	94010....SC-21
90071....SC-16	90291....SC-16	90591....SC-16	91561....SC-12	94011....SC-20
90080....SC-13	90300....SC-17	90600....SC-15	91600....SC-13	94020....SC-21
90081....SC-12	90301....SC-16	90601....SC-14	91601....SC-12	94021....SC-20
90090....SC-13	90310....SC-15	90610....SC-15	91610....SC-13	94030....SC-21
90091....SC-12	90311....SC-14	90611....SC-14	91611....SC-12	94031....SC-20
90100....SC-13	90400....SC-13	91020....SC-15	91700....SC-13	94040....SC-21
90101....SC-12	90401....SC-12	91021....SC-14	91701....SC-12	94041....SC-20
90110....SC-15	90410....SC-13	91030....SC-15	91710....SC-13	94050....SC-21
90111....SC-14	90411....SC-12	91031....SC-14	91711....SC-12	94051....SC-20
90120....SC-15	90420....SC-13	91040....SC-15	91720....SC-13	94060....SC-21
90121....SC-14	90421....SC-12	91041....SC-14	91721....SC-12	94061....SC-20
90130....SC-15	90450....SC-13	91050....SC-17	91800....SC-17	95050....SC-17
90131....SC-14	90451....SC-12	91051....SC-16	91801....SC-16	95051....SC-16

### solderless terminal crimp tool

29104....SC-23



## solderless terminals and connectors

### features and construction

One-Piece Construction for Greater Strength and Economy.



Full  $\frac{1}{4}$ " long Shank Provides Extra Length for Fast, Easy Location When Crimping and Wide Crimping Area for Permanent, Vibration-Free and Moisture-Proof Connections.

Made of Pure Soft Copper for High Conductivity and Electro-Tin Plated for Maximum Corrosion Resistance

STRAIGHT—VINYL INSULATION Suitable for Insulation Support

FLARED—VINYL INSULATION Suitable for Large Insulation Diameter and Dual Wire Support.

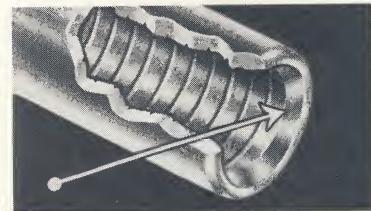
- Stocked In 22-16, 16-14 and 12-10 Wire Ranges

- Available in Wide Variety of Types and Styles

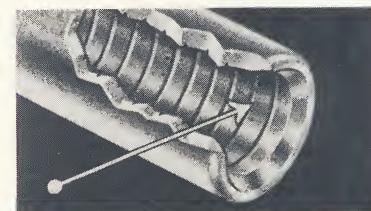
- Load Capacity Greater Than Wire Itself

- Quality Controlled for Dimensional and Electrical Uniformity

- Other Plating Can Be Supplied Upon Request



- Funnel-Edged Barrel for Fast, Easy Insertion of Wire



- Multiple V-Notched Internally for Better Contact and Maximum Holding Power

#### Color Code Identification of Wire Ranges

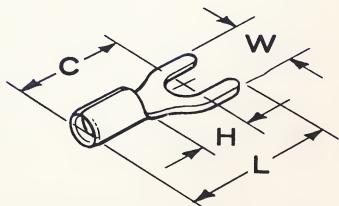
22-16

16-14

12-10

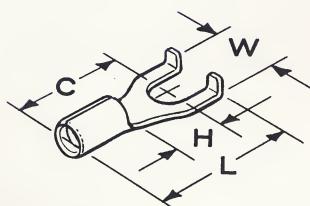
## non-insulated

spade tongue



STYLE 1

spade flanged tongue



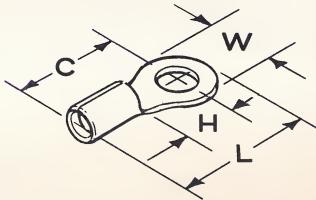
STYLE 2

Wire Range	Style	Stud Size	Stud Clearance H	Tongue Width W	C	L	Part Number
22-16	1	6	5/16	5/16	1/16	3/4	9008
	1	8	5/16	5/16	1/16	3/4	9009
	1	10	5/16	5/16	1/16	3/4	9010
	2	6	5/16	5/16	1/16	3/4	9040
	2	8	5/16	5/16	1/16	3/4	9041
	2	10	5/16	5/16	1/16	25/32	9042
16-14	1	6	3/32	23/64	17/32	23/32	9154
	1	6	3/32	19/64	17/32	23/32	9160
	1	8	3/32	19/64	17/32	23/32	9161
	1	8	3/32	23/64	17/32	23/32	9155
	1	10	3/32	23/64	17/32	23/32	9156
	2	6	3/32	19/64	17/32	45/64	9170
	2	8	3/32	19/64	17/32	47/64	9171
	2	10	3/32	23/64	17/32	3/4	9172
12-10	1	6	3/32	3/8	17/32	47/64	9015
	1	8	3/32	3/8	17/32	47/64	9016
	1	10	3/32	3/8	17/32	47/64	9017
	2	6	3/32	3/8	17/32	11/16	9045
	2	8	3/32	3/8	17/32	23/32	9046
	2	10	3/32	3/8	17/32	3/4	9047

## solderless terminals and connectors

### non-insulated

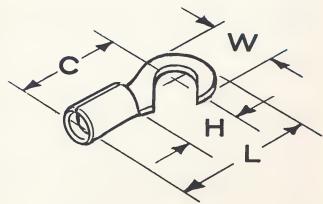
#### ring tongue



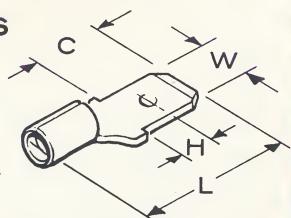
Wire Range	Stud Size	Stud Clearance H	Tongue Width W	C	L	Part Number
22-16	4	5/32	7/32	13/32	33/64	9020
	6	5/32	7/32	13/32	33/64	9012
	6	5/16	5/16	9/16	23/32	9000
	8	5/16	5/16	9/16	23/32	9004
	10	5/16	5/16	9/16	23/32	9001
	1/4	13/32	9/16	2 1/32	15/16	9002
	5/16	13/32	9/16	2 1/32	15/16	9011
16-14	4	7/32	1/4	1 5/32	19/32	9028
	6	7/32	1/4	1 5/32	19/32	9013
	6	9/32	2 3/64	1 7/32	23/32	9054
	8	7/32	1/4	1 5/32	19/32	9031
	8	9/32	2 3/64	1 7/32	23/32	9055
	10	9/32	2 3/64	1 7/32	23/32	9056
	1/4	23/64	1 5/32	39/64	27/32	9060
	5/16	23/64	1 5/32	39/64	27/32	9061
12-10	6	9/32	3/8	1 7/32	4 7/64	9102
	8	9/32	3/8	1 7/32	4 7/64	9103
	10	9/32	3/8	1 7/32	4 7/64	9104
	1/4	1/2	3 9/64	3/4	1 1/16	9108
	5/16	1/2	3 9/64	3/4	1 1/16	9109
	3/8	1/2	3 9/64	3/4	1 1/16	9110

### non-insulated

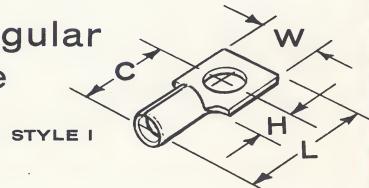
hook tongue



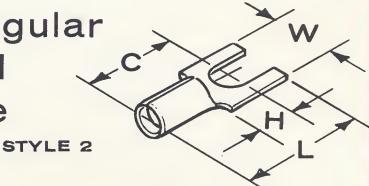
solderless tab



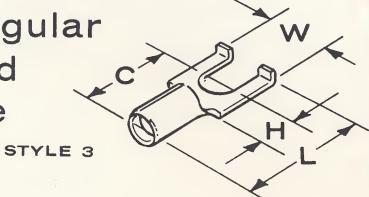
rectangular tongue



rectangular slotted tongue



rectangular flanged tongue



Wire Range	Stud Size	Stud Clearance H	Tongue Width W	C	L	Part Number
22-16	6	5/16	5/16	1/16	2 3/32	9005
	8	5/16	5/16	1/16	2 3/32	9006
	10	5/16	5/16	1/16	2 3/32	9007
16-14	6	9/32	2 3/64	1 7/32	2 3/32	9057
	8	9/32	2 3/64	1 7/32	2 3/32	9058
	10	9/32	2 3/64	1 7/32	2 3/32	9059
12-10	6	9/32	3/8	1 7/32	4 7/64	9105
	8	9/32	3/8	1 7/32	4 7/64	9106
	10	9/32	3/8	1 7/32	4 7/64	9107

Wire Range	H	Tab Width W	C	Ref. Length L	Part Number
16-14	5/32	1/4	5/16	2 3/32	9505

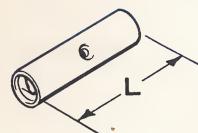
Wire Range	Style	Stud Size	Stud Clearance H	Tongue Width W	C	L	Part Number
22-16	1	6	1 3/64	5/16	2 9/64	3 9/64	9003
	2	6	1 3/64	5/16	2 9/64	3 9/64	9014
	2	6	1 3/64	9/32	2 9/64	3 9/64	9029
	2	8	1 3/64	5/16	2 9/64	3 9/64	9021
	2	8	1 3/64	9/32	2 9/64	3 9/64	9030
	3	6	3/16	5/16	7/16	3 9/64	9180
	3	8	1 3/64	5/16	2 9/64	4 1/64	9181



## solderless terminals and connectors

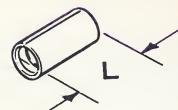
### non-insulated

butt  
connectors

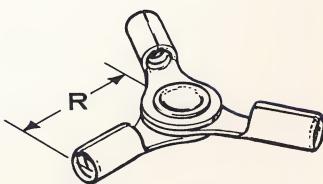


Wire Range	L	Part Number
22-16	$\frac{1}{16}$	9300
16-14	$\frac{1}{16}$	9306
12-10	$\frac{1}{16}$	9307

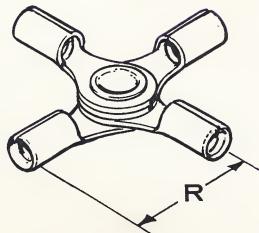
parallel  
connectors



Wire Range	L	Part Number
22-16	$\frac{5}{16}$	9318
16-14	$\frac{5}{16}$	9308
12-10	$\frac{5}{16}$	9312

**non-insulated**
**3-way "Y" connectors**


Wire Range	Reference Length R	Part Number
22-16	$\frac{5}{16}$	9401
16-14	$1\frac{7}{32}$	9402
12-10	$1\frac{7}{32}$	9403

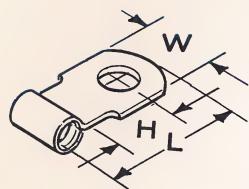
**4-way "X" connectors**


Wire Range	Reference Length R	Part Number
22-16	$\frac{5}{16}$	9404
16-14	$1\frac{7}{32}$	9405
12-10	$1\frac{7}{32}$	9406

## solderless terminals and connectors

### non-insulated

#### rectangular flag

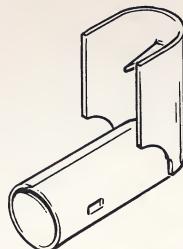


Wire Range	Stud Size	Stud Clearance H	Tongue Width W	L	Part Number
22-16	8-10	5/16	3/8	5/8	9200
16-14	8-10	1 1/64	3/8	5/8	9250

### ignition terminals

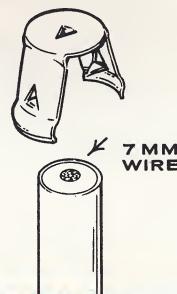
7MM right angle  
spark plug terminals

MATERIAL: steel, cadmium plated



distributor clips  
for 7MM wire

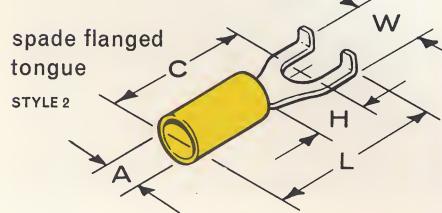
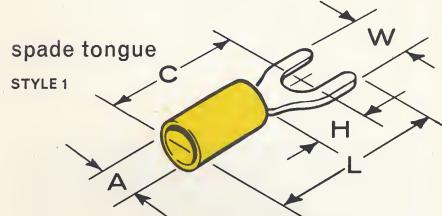
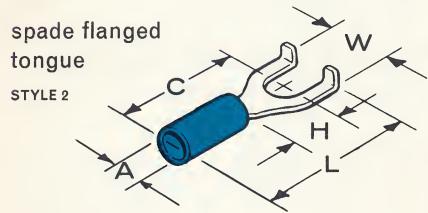
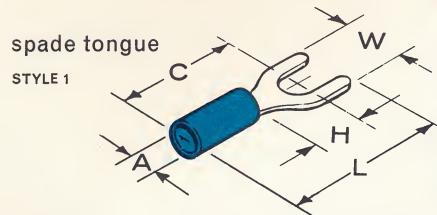
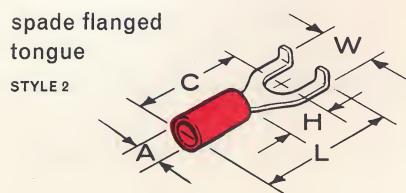
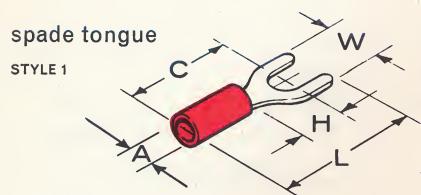
MATERIAL: brass, cadmium plated  
unless otherwise specified



Part Number	Part Number
9492	9494

## solderless terminals and connectors

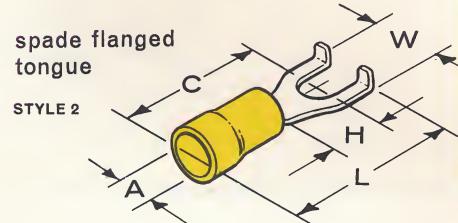
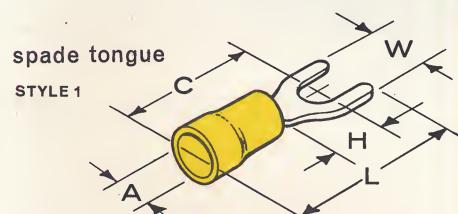
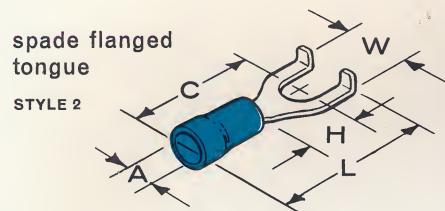
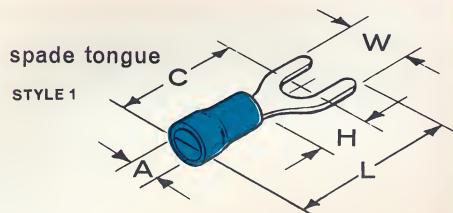
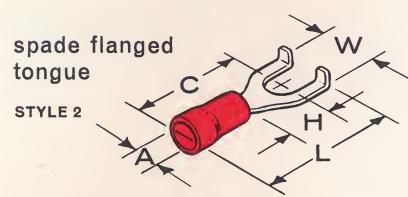
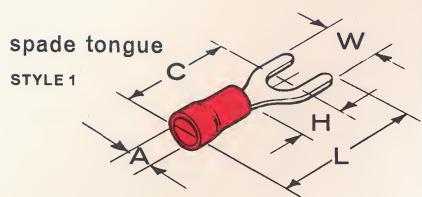
### insulated straight



Wire Range	Style	Stud Size	Stud Clearance H	Tongue Width W	C	Ref. Length L	Insulation Diameter A	Part Number
22-16	1	6	5/16	5/16	3/4	15/16	.120	90081
	1	8	5/16	5/16	3/4	15/16	.120	90091
	1	10	5/16	5/16	3/4	15/16	.120	90101
	2	6	5/16	5/16	3/4	15/16	.120	90401
	2	8	5/16	5/16	3/4	15/16	.120	90411
	2	10	5/16	5/16	3/4	3 1/32	.120	90421
16-14	1	6	9/32	23/64	29/32	29/32	.150	91541
	1	6	9/32	19/64	23/32	29/32	.150	91601
	1	8	9/32	19/64	23/32	29/32	.150	91611
	1	8	9/32	23/64	23/32	29/32	.150	91551
	1	10	9/32	23/64	23/32	29/32	.150	91561
	2	6	9/32	19/64	23/32	57/64	.150	91701
	2	8	9/32	19/64	23/32	59/64	.150	91711
	2	10	9/32	23/64	23/32	15/16	.150	91721
12-10	1	6	9/32	3/8	27/32	1 1/4	.210	90151
	1	8	9/32	3/8	27/32	1 1/4	.210	90161
	1	10	9/32	3/8	27/32	1 1/4	.210	90171
	2	6	9/32	3/8	27/32	1	.210	90451
	2	8	9/32	3/8	27/32	1 1/32	.210	90461
	2	10	9/32	3/8	27/32	1 1/16	.210	90471

## solderless terminals and connectors

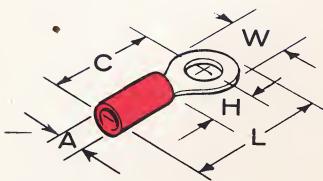
### insulated flared



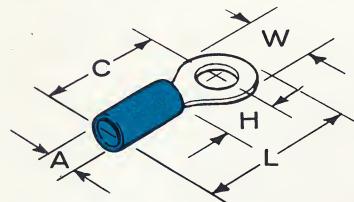
Wire Range	Style	Stud Size	Stud Clearance H	Tongue Width W	C	Ref. Length L	Insulation Diameter A	Part Number
22-16	1	6	5/16	5/16	3/4	15/16	.140-.175	90080
	1	8	5/16	5/16	3/4	15/16	.140-.175	90090
	1	10	5/16	5/16	3/4	15/16	.140-.175	90100
	2	6	5/16	5/16	3/4	15/16	.140-.175	90400
	2	8	5/16	5/16	3/4	15/16	.140-.175	90410
	2	10	5/16	5/16	3/4	31/32	.140-.175	90420
16-14	1	6	9/32	23/64	23/32	29/32	.175-.205	91540
	1	6	9/32	19/64	23/32	29/32	.175-.205	91600
	1	8	9/32	19/64	23/32	29/32	.175-.205	91610
	1	8	9/32	23/64	23/32	29/32	.175-.205	91550
	1	10	9/32	23/64	23/32	29/32	.175-.205	91560
	2	6	9/32	19/64	23/32	57/64	.175-.205	91700
	2	8	9/32	19/64	23/32	57/64	.175-.205	91710
	2	10	9/32	23/64	23/32	15/16	.175-.205	91720
12-10	1	6	9/32	3/8	27/32	13/64	.250-.285	90150
	1	8	9/32	3/8	27/32	13/64	.250-.285	90160
	1	10	9/32	3/8	27/32	13/64	.250-.285	90170
	2	6	9/32	3/8	27/32	1	.250-.285	90450
	2	8	9/32	3/8	27/32	11/32	.250-.285	90460
	2	10	9/32	3/8	27/32	11/16	.250-.285	90470

**insulated  
straight**

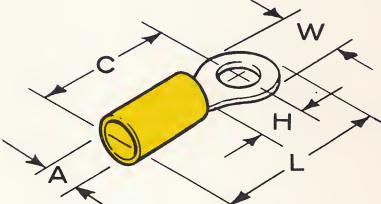
**ring tongue**



**ring tongue**



**ring tongue**

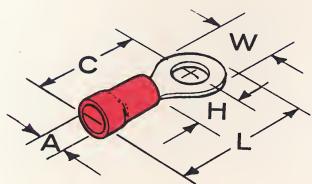


Wire Range	Stud Size	Stud Clearance H	Tongue Width W	C	Ref. Length L	Insulation Diameter A	Part Number
22-16	4	$\frac{5}{32}$	$\frac{7}{32}$	$1\frac{9}{32}$	$4\frac{5}{64}$	.120	90201
	6	$\frac{5}{32}$	$\frac{7}{32}$	$1\frac{9}{32}$	$4\frac{5}{64}$	.120	90121
	6	$\frac{5}{16}$	$\frac{5}{16}$	$\frac{3}{4}$	$2\frac{9}{32}$	.120	90001
	8	$\frac{5}{16}$	$\frac{5}{16}$	$\frac{3}{4}$	$2\frac{9}{32}$	.120	90041
	10	$\frac{5}{16}$	$\frac{5}{16}$	$\frac{3}{4}$	$2\frac{9}{32}$	.120	90011
	$\frac{1}{4}$	$1\frac{3}{32}$	$\frac{9}{16}$	$2\frac{7}{32}$	$1\frac{1}{8}$	.120	90021
	$\frac{5}{16}$	$1\frac{3}{32}$	$\frac{9}{16}$	$2\frac{7}{32}$	$1\frac{1}{8}$	.120	90111
16-14	4	$\frac{7}{32}$	$\frac{1}{4}$	$2\frac{1}{32}$	$2\frac{5}{32}$	.150	90281
	6	$\frac{7}{32}$	$\frac{1}{4}$	$2\frac{1}{32}$	$2\frac{5}{32}$	.150	90131
	6	$\frac{9}{32}$	$2\frac{3}{64}$	$2\frac{3}{32}$	$2\frac{9}{32}$	.150	90541
	8	$\frac{7}{32}$	$\frac{1}{4}$	$2\frac{1}{32}$	$2\frac{5}{32}$	.150	90311
	8	$\frac{9}{32}$	$2\frac{3}{64}$	$2\frac{3}{32}$	$2\frac{9}{32}$	.150	90551
	10	$\frac{9}{32}$	$2\frac{3}{64}$	$2\frac{3}{32}$	$2\frac{9}{32}$	.150	90561
	$\frac{1}{4}$	$2\frac{3}{64}$	$1\frac{5}{32}$	$5\frac{1}{64}$	$1\frac{1}{32}$	.150	90601
	$\frac{5}{16}$	$2\frac{3}{64}$	$1\frac{5}{32}$	$5\frac{1}{64}$	$1\frac{1}{32}$	.150	90611
21-10	6	$\frac{9}{32}$	$\frac{3}{8}$	$2\frac{7}{32}$	$1\frac{3}{64}$	.210	91021
	8	$\frac{9}{32}$	$\frac{3}{8}$	$2\frac{7}{32}$	$1\frac{3}{64}$	.210	91031
	10	$\frac{9}{32}$	$\frac{3}{8}$	$2\frac{7}{32}$	$1\frac{3}{64}$	.210	91041
	$\frac{1}{4}$	$\frac{1}{2}$	$3\frac{9}{64}$	$1\frac{1}{16}$	$1\frac{3}{8}$	.210	91081
	$\frac{5}{16}$	$\frac{1}{2}$	$3\frac{9}{64}$	$1\frac{1}{16}$	$1\frac{3}{8}$	.210	91091
	$\frac{3}{8}$	$\frac{1}{2}$	$3\frac{9}{64}$	$1\frac{1}{16}$	$1\frac{3}{8}$	.210	91101

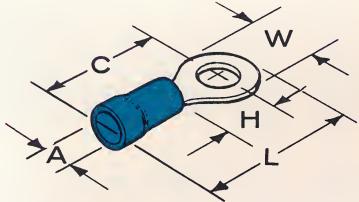
## solderless terminals and connectors

### insulated flared

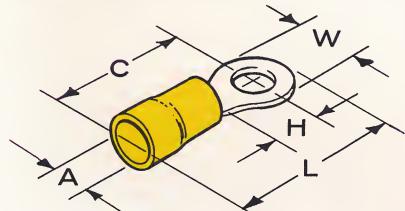
#### ring tongue



#### ring tongue



#### ring tongue

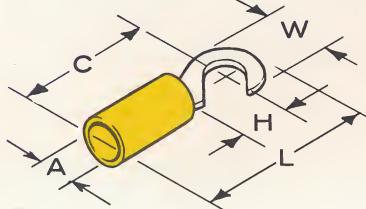
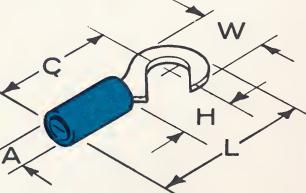
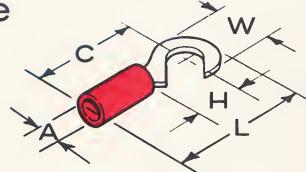


Wire Range	Stud Size	Stud Clearance H	Tongue Width W	C	Ref. Length L	Insulation Diameter A	Part Number
22-16	4	5/32	7/32	19/32	45/64	.140-.175	90200
	6	5/32	7/32	19/32	45/64	.140-.175	90120
	6	5/16	5/16	3/4	29/32	.140-.175	90000
	8	5/16	5/16	3/4	29/32	.140-.175	90040
	10	5/16	5/16	3/4	29/32	.140-.175	90010
	1/4	13/32	9/16	27/32	1 1/8	.140-.175	90020
	5/16	13/32	9/16	27/32	1 1/8	.140-.175	90110
16-14	4	7/32	1/4	21/32	25/32	.175-.205	90280
	6	7/32	1/4	21/32	25/32	.175-.205	90130
	6	9/32	23/64	23/32	29/32	.175-.205	90540
	8	7/32	1/4	21/32	25/32	.175-.205	90310
	8	9/32	23/64	23/32	29/32	.175-.205	90550
	10	9/32	23/64	23/32	29/32	.175-.205	90560
	1/4	23/64	15/32	51/64	1 1/32	.175-.205	90600
	5/16	23/64	15/32	51/64	1 1/32	.175-.205	90610
12-10	6	9/32	3/8	27/32	13/64	.250-.285	91020
	8	9/32	3/8	27/32	13/64	.250-.285	91030
	10	9/32	3/8	27/32	13/64	.250-.285	91040
	1/4	1/2	39/64	1 1/16	1 3/8	.250-.285	91080
	5/16	1/2	39/64	1 1/16	1 3/8	.250-.285	91090
	3/8	1/2	39/64	1 1/16	1 3/8	.250-.285	91100

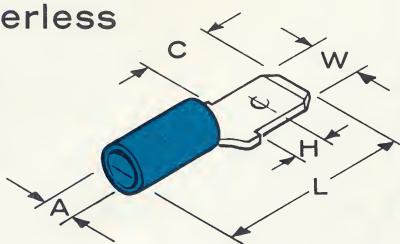
## solderless terminals and connectors

### insulated straight

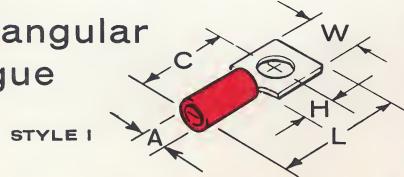
#### hook tongue



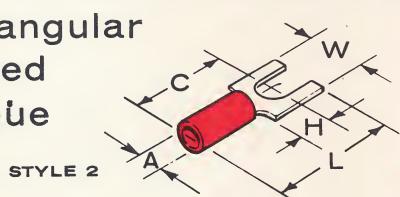
#### solderless tab



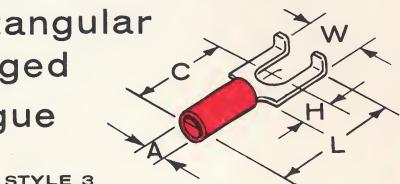
#### rectangular tongue



#### rectangular slotted tongue



#### rectangular flanged tongue



Wire Range	Stud Size	Stud Clearance H	Tongue Width W	C	Ref. Length L	Insulation Diameter A	Part Number
22-16	6	5/16	5/16	3/4	29/32	.120	90051
	8	5/16	5/16	3/4	29/32	.120	90061
	10	5/16	5/16	3/4	29/32	.120	90071
16-14	6	9/32	23/64	23/32	29/32	.150	90571
	8	9/32	23/64	23/32	29/32	.150	90581
	10	9/32	23/64	23/32	29/32	.150	90591
12-10	6	9/32	3/8	27/32	1 3/64	.210	91051
	8	9/32	3/8	27/32	1 3/64	.210	91061
	10	9/32	3/8	27/32	1 3/64	.210	91071

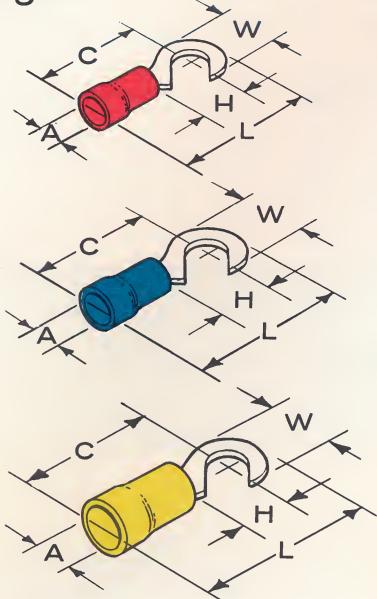
Wire Range	H	Tab Width W	C	Ref. Length L	Insulation Diameter A	Part Number
16-14	5/32	1/4	5/16	59/64	.150	95051

Wire Range	Style	Stud Size	Stud Clearance H	Tongue Width W	C	Ref. Length L	Insulation Diameter A	Part Number
22-16	1	6	13/64	5/16	4 1/64	5 1/64	.120	90031
	2	6	13/64	5/16	4 1/64	5 1/64	.120	90141
	2	6	13/64	9/32	4 1/64	5 1/64	.120	90291
	2	8	13/64	5/16	4 1/64	5 1/64	.120	90211
	2	8	13/64	9/32	4 1/64	5 1/64	.120	90301
	3	6	9/16	5/16	5/8	5 1/64	.120	91801
	3	8	13/64	5/16	4 1/64	5 3/64	.120	91811

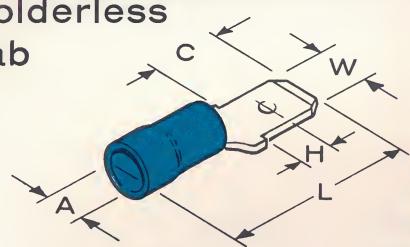
## solderless terminals and connectors

### insulated flared

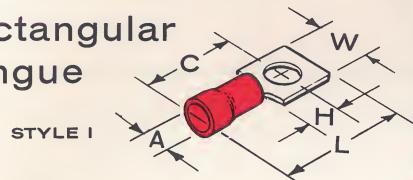
hook tongue



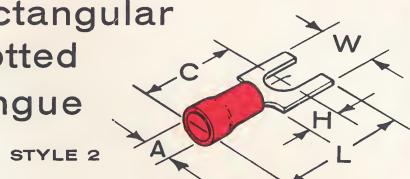
solderless tab



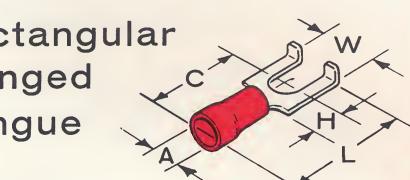
rectangular tongue



rectangular slotted tongue



rectangular flanged tongue



Wire Range	Stud Size	Stud Clearance H	Tongue Width W	C	Ref. Length L	Insulation Diameter A	Part Number
22-16	6	5/16	5/16	3/4	2 9/32	.140-.175	90050
	8	5/16	5/16	3/4	2 9/32	.140-.175	90060
	10	5/16	5/16	3/4	2 9/32	.140-.175	90070
16-14	6	9/32	23/64	23/32	2 9/32	.175-.205	90570
	8	9/32	23/64	23/32	2 9/32	.175-.205	90580
	10	9/32	23/64	23/32	2 9/32	.175-.205	90590
12-10	6	9/32	3/8	27/32	1 3/64	.250-.285	91050
	8	9/32	3/8	27/32	1 3/64	.250-.285	91060
	10	9/32	3/8	27/32	1 3/64	.250-.285	91070

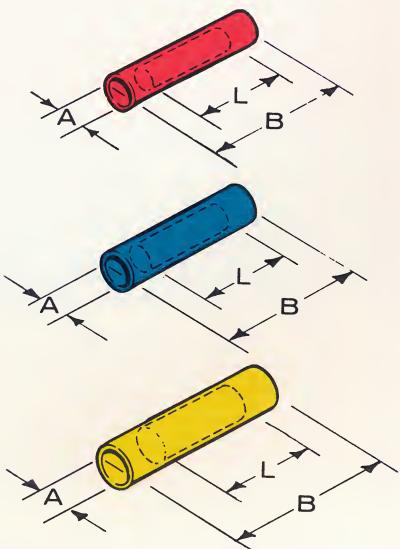
Wire Range	H	Tab Width W	C	Ref. Length L	Insulated Diameter A	Part Number
16-14	9/32	1/4	5/16	59/64	.175-.205	95050

Wire Range	Style	Stud Size	Stud Clearance H	Tongue Width W	C	Ref. Length L	Insulation Diameter A	Part Number
22-16	1	6	13/64	5/16	4 1/64	5 1/64	.140-.175	90030
	2	6	13/64	5/16	4 1/64	5 1/64	.140-.175	90140
	2	6	13/64	9/32	4 1/64	5 1/64	.140-.175	90290
	2	8	13/64	5/16	4 1/64	5 1/64	.140-.175	90210
	2	8	13/64	9/32	4 1/64	5 1/64	.140-.175	90300
	3	6	3/16	5/16	5/8	5 1/64	.140-.175	91800
	3	8	13/64	5/16	4 1/64	5 3/64	.140-.175	91810

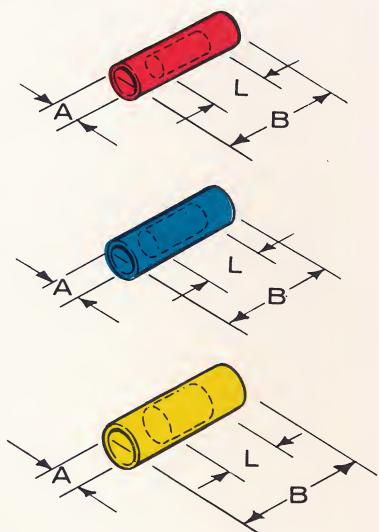
**solderless terminals and connectors**

**insulated  
straight**

**butt  
connectors**



**parallel  
connectors**



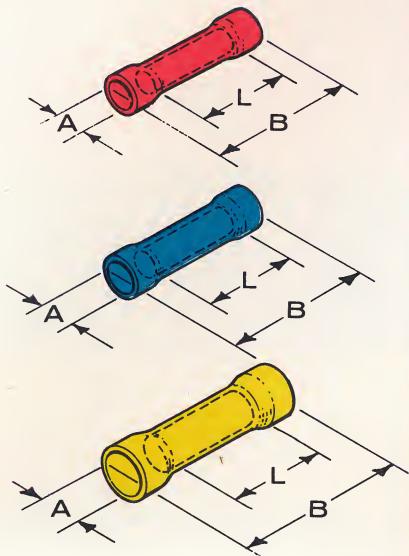
Wire Range	Reference Length L	Insulation Length B	Insulation Diameter A	Part Number
22-16	$\frac{5}{16}$	$1\frac{5}{16}$	.120	93001
16-14	$\frac{5}{16}$	$1\frac{5}{16}$	.150	93061
12-10	$\frac{5}{16}$	$1\frac{1}{16}$	.210	93071

Wire Range	Reference Length L	Insulation Length B	Insulation Diameter A	Part Number
22-16	$\frac{5}{16}$	$1\frac{1}{16}$	.120	93181
16-14	$\frac{5}{16}$	$1\frac{1}{16}$	.150	93081
12-10	$\frac{5}{16}$	$1\frac{3}{16}$	.210	93121

## solderless terminals and connectors

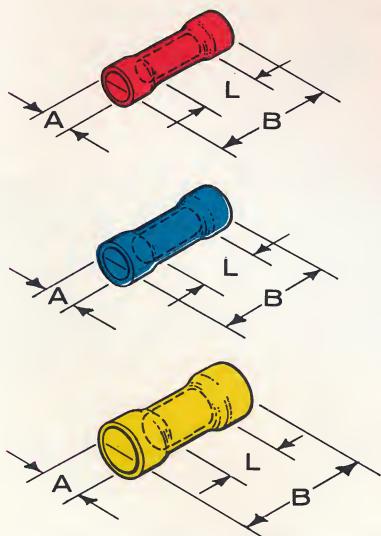
### insulated flared

**butt  
connectors**



Wire Range	Reference Length L	Insulation Length B	Insulation Diameter A	Part Number
22-16	$\frac{5}{16}$	$1\frac{5}{16}$	.140-.175	93000
16-14	$\frac{5}{16}$	$1\frac{5}{16}$	.175-.205	93060
12-10	$\frac{5}{16}$	$1\frac{5}{16}$	.250-.285	93070

**parallel  
connectors**

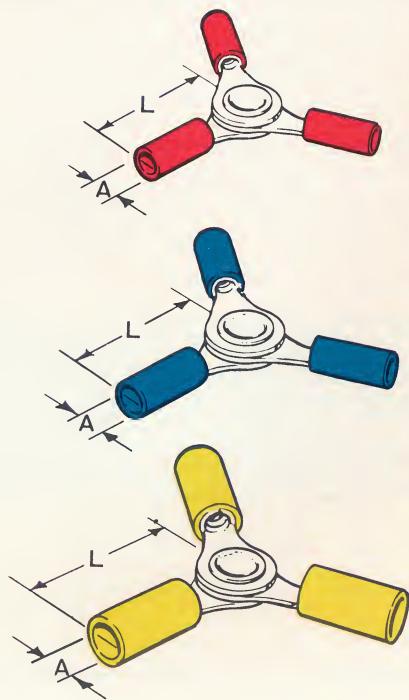


Wire Range	Reference Length L	Insulation Length B	Insulation Diameter A	Part Number
22-16	$\frac{5}{16}$	$1\frac{5}{16}$	.140-.175	93180
16-14	$\frac{5}{16}$	$1\frac{5}{16}$	.175-.205	93080
12-10	$\frac{5}{16}$	$1\frac{5}{16}$	.250-.285	93120

## solderless terminals and connectors

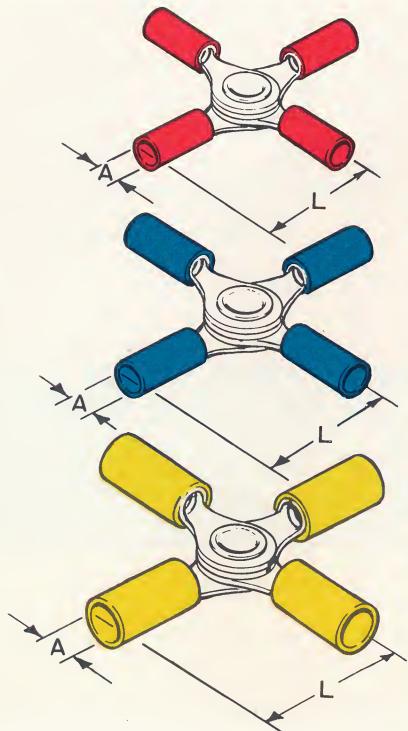
## insulated straight

## 3-way "Y" connectors



Wire Range	Reference Length L	Insulation Diameter A	Part Number
22-16	$\frac{3}{4}$	.120	94011
16-14	$\frac{23}{32}$	.150	94021
12-10	$\frac{27}{32}$	.210	94031

## 4-way "X" connectors

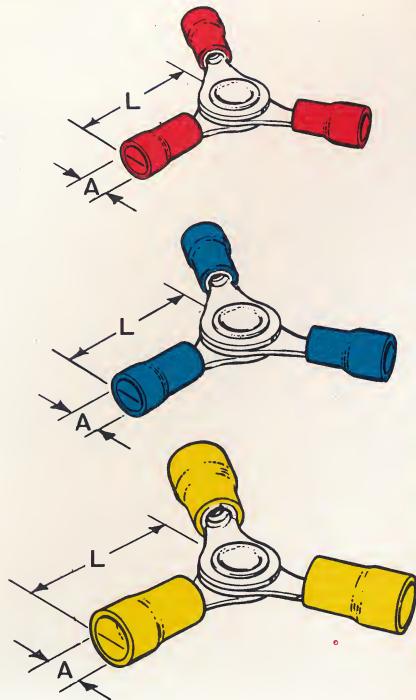


Wire Range	Reference Length L	Insulation Diameter A	Part Number
22-16	$\frac{3}{4}$	.120	94041
16-14	$\frac{23}{32}$	.150	94051
12-10	$\frac{27}{32}$	.210	94061

## solderless terminals and connectors

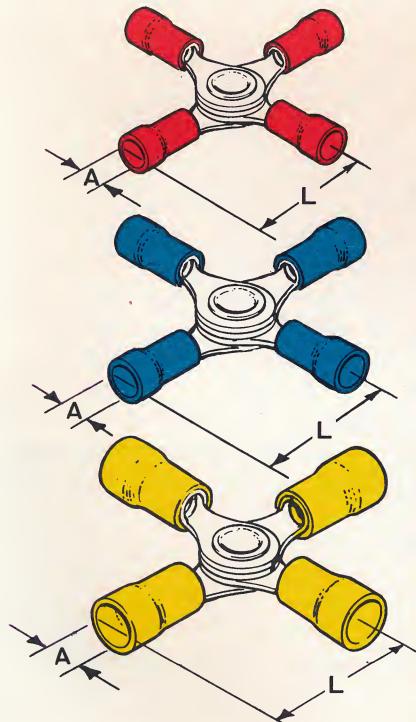
### insulated flared

#### 3-way "Y" connectors



Wire Range	Reference Length L	Insulation Diameter A	Part Number
22-16	$\frac{3}{4}$	.140-.175	94010
16-14	$\frac{23}{32}$	.175-.205	94020
12-10	$\frac{27}{32}$	.250-.285	94030

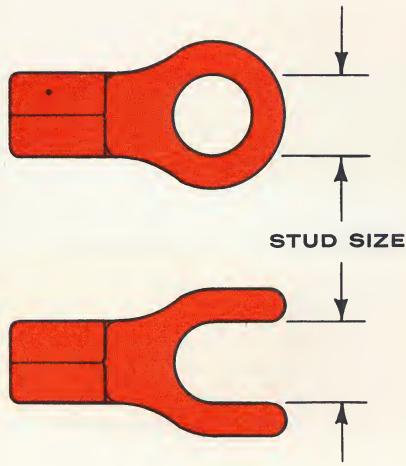
#### 4-way "X" connectors



Wire Range	Reference Length L	Insulation Diameter A	Part Number
22-16	$\frac{3}{4}$	.140-.175	94040
16-14	$\frac{23}{32}$	.175-.205	94050
12-10	$\frac{27}{32}$	.250-.285	94060

## solderless terminals and connectors

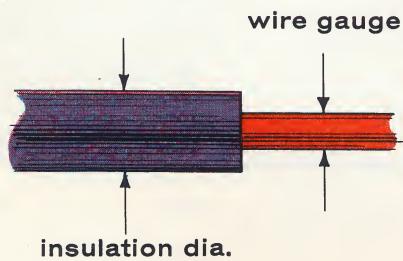
### stud data



Stud Size	Stud Diameter Decimal	Actual Stud Diameter Size	Stud Hole Diameter Inch (1)	Actual Stud Hole Diameter
# 4	.112	●	.119	○
# 6	.138	●	.145	○
# 8	.164	●	.171	○
#10	.190	●	.198	○
1/4	.250	●	.265	○
5/16	.312	●	.328	○
3/8	.375	●	.390	○

Note: 1 Stud hole tolerance on sizes .119 to .198 ± .003  
Stud hole tolerance on sizes .265 to .390 ± .005

### wire gauge data—insulated flared



Actual Hole Sizes	Wire Gauge	Terminal I.D. Diameter -Inch + .003 (I.D. Tolerance — .004)	Insulation I.D. Diameter -Inch + .008 (I.D. Tolerance — .008)
●	22-16	.066	.167
○	16-14	.087	.197
○	12-10	.132	.277



## solderless terminal crimp tool



MALCO PART  
No. 29104



malco

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ELECTRONIC HARDWARE  
 CONNECTORS

Malco Products Are Covered by One or More of the Following U.S. and Corresponding Foreign Patents and Other Patent Applications Pending

2,674,724	2,811,702	2,814,024	2,814,802	2,871,551	2,877,441	2,914,745	2,983,898	3,067,902	3,072,880	3,070,772
2,995,617	3,002,654	3,002,669	3,004,581	3,030,603	3,044,040	3,060,402	3,063,139	3,077,027	3,071,844	3,086,074